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PLATE I.

TO ILLUSTRATE DR. CHALMERS WATSON'S CASE OF KERATOSIS PILARIS.

PLATE II.

FIG. 1.

FIG. 1.

FIG. 2.
KERATOSIS PILARIS.

PLATE III.

FIG. 1

FIG. 2
KERATOSIS PILARIS

THE BRITISH JOURNAL OF DERMATOLOGY.

JANUARY, 1904.

KERATOSIS PILARIS, WITH SPECIAL REFERENCE TO THE VASCULAR CHANGES IN THE SKIN.

BY CHALMERS WATSON, M.B., F.R.C.P. EDIN.,

*Physician in charge of Eye, Ear, and Throat Department, Marshall Street
Dispensary, Edinburgh.*

DESCRIPTION OF THE CASE.—William P—, aged 6, a small, thin, poorly developed boy, was sent to me in March, 1903, by Dr. Isabel Venters on account of a peculiar skin eruption on the buttocks, thighs, and neck, which had existed for about eight months and was progressive.

Family history.—The mother is not strong, but has had no serious illnesses. The father is stated to be delicate, and is markedly bald for his years. One sister, with whom the patient sleeps, has a very slight eruption on the posterior axillary folds, of a nature similar to that on the patient.

Past personal history.—When he was under two years of age the patient was under my care in the aural department of the dispensary suffering from chronic suppurative middle-ear disease. This proved not amenable to simple local treatment, and after a time he was sent to the surgical department of the Royal Hospital for Sick Children for the removal of enlarged tonsils and adenoid growths. A continuation of appropriate local treatment still effected no improvement, and six months later a radical post-aural operation was carried out in the same institution. The operation was followed by a diminution in the discharge, which, however, still remained copious. At later

intervals a similar radical operation was performed on two occasions by an expert aural surgeon. Some months after the last operation the discharge from the ear practically ceased, but the sinus behind never entirely closed. When he was about four years old he was very severely burned all over the right side of the body, and was treated in the wards of the Royal Infirmary for over eight months.

Present illness.—In July, 1902, the mother observed that the patient's skin was becoming very rough, noticeably on the buttocks, back of thighs and neck, and posterior axillary folds. Shortly afterwards small papular elevations developed and projected like spines from the surface of the skin. The patient was never inclined to play; he had a capricious appetite, often eating immoderately; he was inclined to sit beside the fire continuously. At the time of observation (March, 1903) the eruption was stated to be progressive.

Present condition.—The patient is a small, thin, poorly developed boy, with the expression of an old man. The skin of the right side of the face and a large part of the trunk shows a cicatrix, the result of a burn. The skin of the buttocks, posterior and lateral aspects of the thighs, and extensor aspects of the neck and axillæ is the seat of a well-marked skin eruption. This consists in numerous papular elevations of a conical nature, many of the elevations being pierced by a short, thick, black stump of a hair which projects straight outwards (Pl. I). Many of the elevations present a very characteristic spinous appearance. The intervening skin is dry, inflexible, and void of any appearance of hair. There is an entire absence of hair on the trunk and limbs, with the exception of the forearms, which merely show the faintest indications of the presence of hair. The hair of the head is dry and lustreless, and shows marked indications of early senile baldness. This is equally pronounced on the two sides of the head. The bowels are constipated and the motions are very offensive. The average pulse-rate of five observations taken over three days is 65. The foregoing facts may now be summarised as follows:—*A skin eruption of the nature of Keratosis pilaris, with which is associated defective development of hair all over the body, early senile baldness, an abnormally slow pulse, and constipation with foetid stools.* With regard to the name of the eruption, I attach little importance to the particular term employed. So far as I can judge from the literature, the following terms would be equally appropriate, viz. Lichen pilaris, Lichen

spinulosus, Pityriasis pilaris, Keratosis follicularis, Keratosis supra-follicularis (Unna), and Keratosis pilaris (Crocker).

Histological examination.—A biopsy was made and a small piece of skin excised from the buttock. At least fifty sections of this skin were submitted to a careful histological examination, and for purposes of control a piece of skin was excised from the skin of the buttocks of two children of the same age who died from tuberculosis. The following pathological states were observed:

Cutis vera.—(a) The cutis vera was markedly thickened (see Pl. II). It showed an excess of fully formed fibrous tissue, and also a great increase in the number of small round-cells in the papillary layer (see Pl. II, fig. 2; Pl. III, fig. 1). The fibres of the corium presented a swollen hyaline appearance. (b) The walls of the blood-vessels were thickened, due to an increase in the number of cellular elements, both in the walls and around the vessels (Pl. III, figs. 1, 2). Pl. III, fig. 2, shows a small local dilatation of a vessel with cellular infiltration. (c) The skin glands: Only traces of sebaceous glands were found (Pl. II, fig. 1); these seemed to have disappeared. The sweat-glands were less involved; at places these were considerably broken up and disorganised from the presence of dense fibrous tissue. (d) The arrectores pilorum: At places it appeared as if these muscles were hypertrophied. This change, if present, was not pronounced.

The epidermis.—The mouths of the pilo-sebaceous ducts are dilated into funnel-shaped openings and packed with masses of horny cells (see Pl. II, fig. 1). The presence of this horny mass has produced thinning and atrophy of the rete. At the bottom of the horny layer in the follicle, the cells in the rete mucosum are relatively few in number, with a large amount of intercellular substance. Many of these cells are large, round, homogeneous cells which have stained faintly. Here and there the rete mucosum is increased in thickness (see Pl. II, fig. 2). In the interfollicular areas the stratum corneum is not increased in thickness. The main histological features may thus be summarised:—*A sclerosis of the cutis vera, with cellular proliferation of its papillary layer, marked thickening of the blood-vessels, imperfect hair development, and alterations in the sebaceous and sweat glands.*

Further course and treatment.—The patient was under continuous observation from March 14th until April 30th, the treatment being as follows:

1. During the first ten days of treatment castor oil was administered on four occasions, attention being directed to the character of the stools. The diet was ordinary.

2. From April 3rd onwards the treatment was as follows:—(a) Daily inunction of the buttocks and thighs with myelocene applied for fifteen minutes, after a preliminary application of hot water to the part; (b) a small dose of sulphate of magnesia was given daily; (c) an occasional enema of plain water was administered, in all on five occasions.

The course under treatment may be summarised. In the first ten days a distinct improvement occurred in the condition of the skin, the most noticeable feature being an increased flexibility of the whole skin surface. A very marked improvement in the eruption occurred simultaneously with the commencement of treatment by myelocene, the improvement in two days being very striking. After a fortnight's treatment by inunction the skin of the buttocks and thighs was practically normal in appearance and texture. A week later, however, there was a slight recurrence of the eruption, associated with dark pigmentation of the skin. This pigmentation was pronounced, and is a point to which we draw special attention. Coincidentally with the improvement in the condition of the skin there occurred a marked growth of fine hair in the normal situations all over the body. On May 1st all traces of the eruption had disappeared, not only from the parts locally treated, but from the neck and axillæ, which had not been submitted to local treatment. At this date the patient was shown at a meeting of the Edinburgh Medico-Chirurgical Society, when the skin of the buttocks and other parts presented a perfectly normal appearance; attention was at the same time directed to the growth of hair on the forearms, which by this time was fairly luxuriant. Attention should further be directed to the following features in the progress of the case:

(a) The general circulation: It was previously stated that the average of the first five records of pulse-rate was 65, an abnormally slow rate for a patient of his age. The rate of the pulse gradually increased, as shown in the following figures, which are averages for ten readings (night and morning) in consecutive periods:—64, 65, 66, 68, 78, 75, 79. This increase in rate was attended by an alteration in character, the pulse acquiring a fuller volume, with a more relaxed vessel wall.

(b) The general health of the patient: Whereas previous to treatment the patient had been spiritless and disinclined for play, he now had for the first time the natural inclinations of a high-spirited urohin, and was incessantly in mischief. The patient has been frequently seen in the course of the six months that have elapsed since the cessation of treatment, and the condition of the skin has remained normal.

Etiology of the disease.—The full consideration of the possible causes of this peculiar skin affection necessitates a careful study of the general medical aspects of the case, also the study of the cutaneous manifestations of the disease, and the manner in which either or both of these were influenced by the particular treatment employed. This necessitates a brief recapitulation of the essential points, viz.:

The occurrence in a boy of six years of age of a skin eruption of the nature of *Keratosis pilaris*, associated with the absence of hair on the skin, early senile baldness, an abnormally slow pulse, and constipation with fœtid stools; further, the antecedent history re the aural condition, the extensive burn, and also the hereditary history must be carefully considered.

The histological examination of the skin revealed a sclerosis or thickening of the corium with cellular infiltration in its papillary layer, marked thickening of the blood-vessels with cellular infiltration round them, imperfect development of hair, with alterations in the sebaceous, and to a less extent in the sweat-glands.

The course under treatment showed that the skin condition was, to all intents and purposes, cured by the adoption of measures directed to minimise septic absorption from the alimentary tract, along with the introduction into the patient's system, viâ the skin, of a product of bone-marrow which the writer has previously shown to possess undoubted value in the treatment of some skin affections (1). Further, the disappearance of the eruption was followed by the development of hair in its normal positions all over the body, a relaxation of the peripheral blood-vessels, with an increase in the pulse-rate, which had hitherto been abnormally slow, and an improvement in the patient's general health, which had now reached a standard never previously attained.

What interpretation are we justified in putting on these series of facts?

The clinical features of the case, the morbid histological appearances

of the skin, and the results of treatment lead me to regard the condition as one of chronic irritation of and defective nutrition of the skin, the changes in the cutis vera being primary and the epidermic changes secondary, the circulating irritant acting primarily on the cutaneous vessels—inducing a condition of thickness and spasm,—the source of the irritant being in all probability the alimentary tract. The liability to such a chronic and latent infection in this patient was in all likelihood increased, due to the diminished powers of resistance resulting from the very severe chronic suppuration of the ear, the numerous operations, and the extensive burn referred to in the history. When we consider the extent to which the natural defences of the organism are bound up in the leucoblastic functions of bone-marrow, the rapidity of improvement which took place coincidently with the use of a preparation of bone-marrow is specially significant.

Previously recorded cases.—The results of a very complete histological study of the disease have been recently recorded by Giovanni (2). This observer records the results of the examination of twenty-five cases, and gives a good bibliography. In this, and in all previous records to which the writer has had access, the clinical records are restricted almost entirely to reference to the cutaneous system; and in the histological descriptions attention has been mainly focussed on the minute anatomy of the pilo-sebaceous follicles and their immediate neighbourhood, and relatively little attention has been paid to the blood-vessels. This is, I think, unfortunate, because the nutrition of the pilo-sebaceous follicles and other structures of the skin must depend largely on the existence of healthy vessels. It is true that in previous records the existence of a cellular infiltration in special relation to the vessels has been frequently noted, but little or no etiological significance appears to have been attached to this fact. While no general conclusions can be drawn from a single record, the statement of the facts of this case warrants the recommendation that very special attention should be directed to the study of the blood-vessels of the skin in various diseased states, and also that the clinical records of such cases should not be too exclusively directed to the cutaneous system.

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2. *Archiv f. Dermat. u. Syph.*, vol. lxiii, 1902, p. 163.

DESCRIPTION OF PLATES.

PLATE I.

Keratosis pilaris of eight months' duration, involving the buttocks, thighs, neck, and axillæ, accompanied by early baldness, in a patient aged 6 years.

PLATE II.

FIG. 1.—Skin from the buttock of case of Keratosis pilaris. The section shows: *a*. The mouths of two pilo-sebaceous follicles distended with horny material which stains deep red with eosin. *b*. Thinning and atrophy of the rete mucosum, round *a*. *c*. At the bottom of the funnel the cells of the rete are more faintly stained. On high-power examination the cells here are large, spherical, and homogeneous, and are relatively very few in number, with a larger amount of intercellular material. *d*. In the centre of the field is seen one of the arrectores pilorum, which is probably slightly hypertrophied. Between it and the bottom of the funnel are seen traces of sebaceous glands. The dark band alongside the deeper part of the funnel is the much thickened sebaceous duct. *e*. The corium is increased in thickness, and shows an increase in number of cells in the papillary layer. $\times 50$.

FIG. 2.—Note (i) the increase in thickness in the corium. (ii) Small-cell infiltration of the papillary layer of the corium, in special relation to the blood-vessels. (iii) The remains of some sweat-glands, considerably disorganised from fibrous tissue proliferation, are seen in the deepest part of the field, on the right-hand side. (iv) Some increase in thickness of the rete mucosum. $\times 50$.

PLATE III.

FIG. 1.—Shows a considerable degree of small-cell infiltration of superficial part of the corium. This is most marked around the vessels, one of which is seen in the lower part of the field. $\times 200$.

FIG. 2.—Note in the centre of the field a localised cellular thickening of a vessel wall; the fibres of the corium present an irregular, swollen, and hyaline appearance, which is absent in the control specimens. $\times 200$.

ON THE PLASMA-CELL, THE "SMALL ROUND-CELL," AND
THE CELLS OF CHRONIC INFLAMMATION IN GENERAL:
A SURVEY OF RECENT LITERATURE, WITH THE RE-
SULTS OF SOME FURTHER OBSERVATION AND EX-
PERIMENT.

By ARTHUR WHITFIELD, M.D., M.R.C.P.

(From the Pathological Laboratory, King's College.)

In writing this sketch I am quite aware that the "plasma-cell question" has been the subject of so much writing that it is small

wonder when readers of dermatological journals carefully shun all references to it. At the same time a general review of the story is occasionally of use, and having followed the literature of the subject and spent a good deal of time in personal work on this branch, I hope to be able to furnish a more or less connected account, which may be of help to English readers, more especially as most of the really careful and important work of recent date seems to have passed from the domain of the dermatological journal, to which it should never have belonged, and found a place in the more suitable surrounding of journals and works on pathology.

Although in the title of this paper I have undertaken only to deal with the recent literature of the subject, yet it is, I fear, necessary to refer shortly to some of the older work for purposes of clearness.

In 1891 Unna, in experimenting with various stains, and especially with methylene blue, observed in chronic inflammations, and especially in lupus, cells which he named "plasma" cells, believing them to be identical with those originally described and named by Waldeyer in 1875. These cells of Waldeyer's were described as follows. He found that there occurred in connective tissue a group of cells important in its wide-spread distribution, if not in actual numbers, characterised by large roundish individuals rich in plasma—embryonic cells of connective tissue, or shortly, plasma-cells. They reminded him of the cells of embryonic connective tissue, and were distinguished by their richness in granular protoplasm. These cells were of normal occurrence, and were to be found in the omentum and pleura of young rabbits, in the intermuscular planes of frogs, in variously situated connective tissues, and in the neighbourhood of vessels and nerves. He also included in this class the cells of the so-called intertubular substance of the testicle, those of the coccygeal and carotid glands, certain cells often found in the adventitial layer of the arteries of the brain, cells of the supra-renal body, of the corpus luteum, and of the decidua or serotina of the placenta. These cells particularly readily take up fat in one of two ways: either in large drops, becoming ordinary fat-cells; or by taking it up in fine globules and becoming coarsely granular clumps, such as are seen in fatty degeneration, except that the granules are usually finer. Unna's original description of his plasma-cells was not very detailed, but he states that he showed specimens of them to Waldeyer, who pronounced them identical with

his plasma-cells. Unna's description is as follows:—In very recent lupus nodules, one finds either collections of round-cells or a more diffuse infiltration. By appropriate staining (polychrome methylene blue), these cells may be shown to form two types: the first is a large, more or less rounded or polygonal cell, with a very strongly basophile and somewhat granular protoplasm, and a nucleus eccentrically placed, and staining of a lighter tint than the protoplasm,—this is the typical plasma-cell; secondly, small cells with a single nucleus and only the smallest visible rim of protoplasm, formerly thought to be the hæmic lymphocyte, and called by Unna the daughter plasma-cell on the supposition that it is produced by the division, mostly amitotic, of the plasma-cell. Unna derives the plasma-cell, as is well known, from the connective-tissue cell or fibroblast, and finds that it is especially frequently formed from the adventitial cell or perithelium. The ultimate fate of the plasma-cell is either degeneration or division into daughter plasma-cells, and in the former case it gives rise by the homogenising of its protoplasm to the epithelioid cell, and if the nucleus retains its power of dividing after the protoplasm has become homogeneous, to the giant-cell. It may be here remarked that much criticism has been written about the specificity of Unna's polychrome blue method of staining for plasma-cells, and various authors have claimed that other methods are equally good or better. While believing it to be always better where possible to stain with various dyes, and to harden in different manners for the study of microscopical appearances, I think it is beyond doubt that until the introduction of Pappenheim's pyronin methyl green stain, the old method of polychrome blue introduced by Unna was by far the best for bringing the cells into due prominence.

This publication of Unna's with reference to the origin of the plasma-cell, and especially the daughter plasma-cell—the latter relationship having, I think, been overlooked somewhat in this country,—was the signal for a general expression of opinion and numerous writings on the subject, and, if I may be permitted to say so, the entrance into the discussion of many whose knowledge of the cytological conditions of Mammalia was insufficient to justify any expression of opinion whatever, and could only lead, as it undoubtedly did lead, to the exchange of personalities more calculated to bring the whole inquiry into disgrace and ridicule than to help in the elucidation of what I believe will

eventually turn out to be a most important question with reference to local immunity.

The first important piece of work controlling these results of Unna's was that of von Marschalko from Neisser's clinic. In this the appearances of the typical plasma-cell were perhaps more definitely characterised than by Unna in his first description. The plasma-cell as described by Marschalko has the following morphology:—It is, when not subjected to pressure or tension, of a round or oval form; when compressed, of cubical, polygonal, or elongated shape. The nucleus is eccentric, round or oval in shape, containing one or, less commonly, two nucleoli, always staining darkly. If decolourisation has not been carried too far, there are also to be seen five to eight peripherally lying chromatin granules; the nucleus is usually single, but there may be two or even three present in one cell. The protoplasm stains most deeply at the periphery, leaving a central light halo, which is characteristic, but the balling together of the protoplasm, described by Unna as granules, is not characteristic.

To investigate the origin and relations of the plasma-cells, Marschalko carried out a large number of experiments on normal animals, both by cauterising the liver with carbolic acid and by the insertion of pieces of sterile drainage-tube. He also carried out a great number of examinations of normal organs; he produced an artificial leucocytosis and injected tuberculin, subsequently examining the spleen; and lastly, he carried out a very complete series of investigations into the pathological anatomy of various diseases. As the result of this patient research he arrived at conclusions which I summarise. The small round-cells previously known as lymphocytes are not the result of amitotic division of plasma-cells, but in some cases develop into plasma-cells. Plasma-cells are thus not derivatives of fixed connective-tissue cells, but are derived from the hæmic lymphocytes. Plasma-cells are not pathological cells only, but are found freely in the lymphatic glands and spleen. They have no relationship with epithelioid cells, but differ from them in almost every particular. The small round-cell appears in great numbers at a time (twenty-four hours) when, according to our present knowledge, proliferation of connective-tissue cells has not occurred. These cells can be seen in the lumen of the vessel, and in the act of passing through its wall. Plasma-cells also appear within twenty-four hours lying between the

lymphocytes in such numbers that it appears absolutely impossible for them to have originated by the division of the fixed cells of the part.

There were many other interesting points in this paper, and there was already some sign of the personal element which was afterwards to become so lamentably strong in the discussion. One point on which I must strongly disagree with Marschalko is his statement that many other stains are equally good for demonstrating the cells under discussion. That they may be easily identified in sections stained with almost any dye is certain when one has once gained experience of them, but that they are so well demonstrated by such stains does not, in my opinion, admit of serious contention.

The views of Marschalko certainly gained general acceptance among the foremost pathologists of the day, and I am aware of no great pathological text-book bearing mention of the subject which does not favour his explanation.

Another very careful research was that of Schottländer on ovarian tuberculosis. It is unnecessary to go into great detail concerning his paper, but it will suffice to say that he believed the plasma-cells were developed not only from leucocytes, but also from the large mononuclear cells. He saw much resemblance between young connective-tissue cells and plasma-cells, and believed that the latter might develop both into granulation-tissue cells and epithelioid cells, a vital difference from Marschalko. Jadassohn had earlier on sided with Marschalko, or rather forestalled Marschalko in his views, with the slight difference that he recognised mitosis as occasionally seen in plasma-cells. Joannovicz, on investigating the matter, came to the conclusion that plasma-cells were developed from (1) the lymphocytes and large mononuclear cells, and (2) from the connective-tissue cells, but not especially from the perithelium. Enderlen and Justi, after a long and thorough experimental investigation, came to the conclusion that plasma-cells were developed from the hæmic lymphocytes and large mononuclear cells. So far the only supporter of Unna's views was Menahem Hodara, who, in a very complicated paper, sets forth the view that there are two forms of cells which have been confounded by Unna's antagonists, one of which, the true plasma-cell, is derived from the fixed cell of the part, and the other, the pseudo-plasma-cell, is derived from the hæmic cell called by Menahem Hodara the poly-eidocyte. This contention has been received with a chilling silence

by most writers, but is referred to by Krompecher only to say that to him, at least, it is unintelligible, an opinion with which I can only agree.

Krompecher's paper is one of great interest, and in it he expresses the following conclusions:—(1) Besides the plasma-cells as defined by Marschalko, there exist, especially in infectious processes, often, so to speak, exclusively, immense numbers of well-defined plasma-cells with *vesicular* nuclei and *broken-up protoplasm*, which in all probability are to be looked upon as degeneration products of the typical plasma-cell induced by the infective virus. (2) The protoplasm often shows degenerative vacuolation, the nucleus occasionally the most variable forms of karyorrhexis. (3) In the preparations where mast-cells are numerous one often finds in the body of the plasma-cell basophile granules, and fairly often Russell's fuchsin bodies. (4) While the majority of the plasma-cells are derived from the lymphocytes, it would appear that a certain proportion are derived from the polynuclear leucocytes and the large mononuclears. (5) The fact that in places one finds only spindle-shaped plasma-cells with very long processes lying between the collagenous bundles; further, the frequent occurrence of transition forms between plasma-cells and epithelioid cells; the extraordinary rarity of mitosis in the connective-tissue cells; and lastly, the fact that the protoplasm of young connective-tissue cells often gives a reaction with methylene blue similar to that of plasma-cells,—points decidedly to the probability of plasma-cells being metamorphosed into connective-tissue cells, *i. e.* that part of the connective tissue is formed from plasma-cells, and that the latter have therefore a *progressive* activity. This progressive activity is indicated by the intense staining, and also by the presence of more than one nucleus. (6) The, as one may say, proved origin of plasma-cells from lymphocytes, and their assumed development into connective-tissue cells, would point to the hæmatogenous origin of connective tissues, whereby the plasma-cells form transition stages and cause the metamorphosis of hæmic wandering cells into connective-tissue cells.

So far these contributions to the discussion seem to harp almost entirely on one string. Either the plasma-cell is derived from the mononuclear cells of the blood, or it is derived from the connective-tissue corpuscle. Ribbert brings a new element into the discussion by stating that the whole mass of so-called lymphocytes and plasma-

cells arise from minute lymph nodes or collections which were present in the normal tissue, and therefore only required the stimulus of inflammation to develop into the formidable army of cells which are seen later. Marchand, whose opinion must carry great weight, from his immense experience and general pathological knowledge, takes a slightly different and very radical view. He points out that the loose adventitial tissue surrounding the vessels contains cells with the following peculiarities:—In the earliest stages of inflammation they are swollen, spindle-shaped cells, with large granular nuclei, rich in chromatin, and of an oval shape. In the immediate neighbourhood there are also cells with a round but otherwise similar nucleus here and there between these smaller forms, with a scanty, clear cell-body like lymphocytes; and further out, scattered through the loose connective tissue or gathered into collections, the large nucleated, granular cells, staining darkly with methylene blue (plasma-cells). As the explanation Marchand gives the following description:—The cells of the adventitia begin to grow very early after the onset of the inflammatory process, and thus produce large amœboid phagocytes, from which small cells proceed exactly corresponding to lymphocytes in form, as also large mononuclear leucocytes. Also in some cases giant-cells and nucleated red blood-corpuscles are produced in the same way. The cells thus produced are able to enter the blood-stream (as occurs in the embryo and the blood-making organs in later life), thus becoming actual leucocytes. The development into polynuclear leucocytes and the attainment of granules are secondary phenomena, occurring partly in the blood-stream and partly in the bone-marrow.

Marchand calls these cells leucocytoid cells, and includes under this heading plasma-cells, small round-cells, mast-cells, and the large phagocytes of the serous cavities. He thinks it is not probable that the leucocytoid cells develop into connective tissue, nor does he think it justifiable to derive the leucocytoid cells from the connective tissue in general.

As will be at once seen, this view differs in important particulars from that of many other writers. Leaving aside the possibility of post-natal development of erythrocytes from the adventitial cells of ordinary tissue as not concerning the question under consideration, it will be noted that to some degree this theory breaks down the specificity of the various classes of leucocytes, and further, entirely

removes the boundary line between the hæmic and fixed-tissue cells. On the other hand, it explains very beautifully the difficult point which has arisen in my mind, and has, I think, been rather shirked by some,—how it is that when we find evidence of a polynuclear collection in the tissues we have also evidence of the accumulation of such cells in the blood, while where the same collection of mononuclear cells occurs the blood-count is scarcely if at all altered.

To the arguments between Pappenheim and Almquist I shall not refer, as I do not think they added anything to our knowledge; but it is necessary to give Pappenheim's original views on the subject. Using the stain that bears his name, he found that he obtained a peculiar staining of lymphocytes and large mononuclear leucocytes in the blood. With the same stain he also found a similar if not identical reaction was given by the so-called plasma- and daughter plasma-cells in the tissues. His contention is that there is a set of hæmic mononuclear cells comprising the lymphocyte and large mononuclear leucocyte, and a parallel set of fixed-tissue cells comprising the plasma- and daughter plasma-cells. After carefully reading his papers on the subject I am unable to follow his reasoning in the matter, and while admitting that it is quite possible, I cannot see how it can be proved that it is so at the present time.

The last piece of literature to which I shall have to refer is a long and extremely minute research by Maximow. By means of various ingenious foreign bodies he managed to obtain different varieties of cells, as he says, almost in pure culture, according to the ease with which they were able to penetrate into small cavities. The paper is so important that I deem it advisable to give a somewhat more detailed treatment of it than I have done of the others; at the same time, owing to its great length, only the chief points can be referred to. Working with the intermuscular septa of the rabbit as a suitable tissue, on account of the simplicity of the cells found there, he first enumerates the cells found in a perfectly normal state. These are—

1. Connective-tissue cells.
2. Lymphoid cells, indistinguishable from lymphocytes.
3. Cells larger than the foregoing, amœboid in character, with a large and spherical nucleus. The nucleus, however, sharing in the deformity caused by the amœboid movement, may become indented on one side, and even progress so far as to the production of a horse-

shoe. The protoplasm increases in amount and becomes heaped up on the side corresponding to the indentation of the nucleus. The protoplasm stains darkly with methylene blue and shows a blurred reticular structure corresponding to the nuclear indentation; there is a clear halo, and in the preparations stained with iron hæmatoxylin this clear space contains a centrosome group of generally two, sometimes three granules. (On this arrangement of the centrosome group Maximow seems to lay great stress as a means of identifying this type of cell in its various transformations.)

4. Cells which at first glance might be taken for connective-tissue cells, but whose nucleus is smaller, round or oval in shape, the margins not quite regular, but showing elevations and depressions, a depression occupying one side of the length of the nucleus as a rule. Inside the nucleus there are numerous dark blue or black chromatin granules, bound together by strands to form a net. These granules are larger than those of the connective-tissue cells, and besides these there are sometimes larger nucleolus-like bodies present. The nuclear network is closer, and consequently the nucleus is darker than that of the connective-tissue cell. The body is long, sometimes quite stretched out; it is smaller than that of the connective-tissue cell, and always much darker and more definite in outline. The protoplasm is in the form of a fine, small-meshed network, very difficult to differentiate; and especially characteristic is the occurrence of special granules present in almost all the cells of this kind. These granules are coarse, rather highly refracting, irregular in shape and size, and usually gathered in groups. The granules stain greenish with methylene blue, and are not metachromatic. The cells are undoubtedly the clasmatoocytes of Ranvier, which Ranvier himself stated to be derived beyond a doubt from emigrated lymphocytes—a view with which Maximow is in agreement, though he admits that there are also some cells which are indistinguishable from connective-tissue cells. Further, he states that in the peritoneal cavity there are to be found cells which are typical Unna's plasma-cells, and which may be traced through every gradation from the small round wandering cells of the cavity.

In discussing the cells present in the earlier stages of aseptic inflammation, Maximow mentions a class of cell which he calls *polyblasts*. These are mononuclear amœboid cells. They are found in great numbers in the mass of cells surrounding the foreign body, even

as early as nineteen hours after its introduction, and they therefore cannot be derived by division of the cells of the original tissues, but must undoubtedly have emigrated from the blood-stream. They are capable of active movement, and arrive on the scene as the result of a chemotactic stimulus. As soon as they reach the meshes of the connective tissue they begin to develop progressively. The lymphocyte develops into the large mononuclear, and some large mononuclears emigrate as such from the vessels, while in either case the cells go on to a further state of development. Thus the tissues become crowded with colossal numbers of mononuclear cells, which exhibit an extraordinarily vital cell material, in the further course of their development undergo the most complicated changes, and produce the most various kinds of cells. For this reason the name of polyblast was chosen. They are in by far the larger proportion derived from the lymphocytes and large mononuclear cells of the blood; a certain number are also derived from the wandering cells normally present in the tissues, and also from the clasmatoocytes. Further, the clasmatoocyte-like cells of the adventitia become mobile and approach the inflamed area also as polyblasts.

The main body of this detailed monograph is taken up with the minute description of the changes in the tissues produced after different periods by the various kinds of foreign body introduced. At the end the results obtained are summed up in the following conclusions:

All the cells in the inflammatory areas produced may be divided into three forms: leucocytes, fibroblasts, and polyblasts. Leucocytes come first even in aseptic irritation, and they are to be put down as preparing the soil in some way for the other cells. They may live some time and hypertrophy; but they do not multiply or form stable tissue elements, being either removed or broken up. The fibroblasts appear much later than either the leucocytes or polyblasts in the cavities of the foreign bodies, and this Maximow thinks is due to their being a more highly differentiated cell, and consequently unable to live in these unusual conditions until the ground has been prepared for them by other cells. He finds that the generally held belief that the fibroblasts in inflammation become round, isolated, and form histiogenic wandering cells, is correct; but he is of opinion that this fact has been generalised from far too much, and considered of undue importance,

and he feels sure that many of the cells which have been known as histiogenic cells are in reality polyblasts. The rabbit's intermuscular plane is particularly favourable for this study, as in it the fibroblasts keep their characteristics in spite of growth, and only singly and rarely become round and isolated, and even then may be easily distinguished from polyblasts.

Polyblasts can, by applying themselves from the outside to young vessels, occasionally completely simulate endothelial cells, but it seems doubtful whether they are in reality taken up into the vessel-wall as endothelium. In the course of the whole process of inflammatory tissue formation, special cells, which one may call generally amoeboid migratory cells, and which he prefers to call polyblasts, play a most important part. They are found already in the first few hours after the introduction of the foreign body in masses. They are then small, mononuclear, very actively amoeboid cells, corresponding exactly to the small lymphocytes or the large mononuclear cells of the blood; the same thing in reality for the latter is the further stage of development of the former.

In the pre-existing tissue there are small numbers of these cells which are to be looked upon as emigrated corpuscles, clasmatoocytes, and clasmatoocyte-like adventitia cells in the neighbourhood of the small vessels. A small proportion of the polyblasts come from those pre-existing, and from the clasmatoocytes and clasmatoocyte-like adventitia cells, but in by far the greatest proportion they emigrate from the vessels, as they are there too soon for division. This multiple origin is nothing against the unity of conception, as all these cells belong to the same group. The particularly basophile protoplasm of the plasma-cell is not specific, and the giant-cell is almost always formed by the fusion of polyblasts, and seldom by amitotic nuclear division.

To Unna's recent paper on the subject it is not necessary to refer further than to call attention to the fact that he repeats his contention that experimental work is unnecessary, as the whole course of events may be followed out in pathological processes ready to our hand.

(To be continued.)

SOCIETY INTELLIGENCE.

DERMATOLOGICAL SOCIETY OF LONDON.

AN ordinary meeting of the above society was held on Wednesday, December 9th, Mr. MALCOLM MORRIS in the chair. The following cases and illustrations were shown :

Dr. S. E. DORE showed (1) a case of *ringworm of the nails* in a woman aged 21 years. The nails of the thumb, index and ring fingers of the right hand were affected, and the thumb, index and middle fingers of the left hand. The condition had only existed for eight weeks. In each case the root and matrix of the nail were first attacked, and an abscess had formed beneath the nail-fold of the ring finger of the left hand. There was no direct evidence of infection, but the patient kept a dog and a cat in the house. In view of the marked effect of X-ray exposures on the nails, it was suggested that they might be employed in the treatment of the case.

Dr. WHITFIELD considered that somewhat severe inflammatory effects would have to be produced before the desired effect could be obtained, and that therefore this method of treatment was inadvisable. He recommended surgical avulsion of the diseased nails.

Dr. COLCOTT FOX advised filing of the nails and the application of iodine solution.

(2) A case of *Tinea versicolor* in a man aged 34. The patient was shown on account of the extensive distribution and somewhat unusual colour of the affected surfaces. The skin of the chest and abdomen was covered with confluent and closely aggregated patches of a bright pink colour. The back was similarly affected, with the exception of the interscapular region, which had escaped invasion by the fungus. There were numerous discrete and circular scaly patches on the arms, and a few on the legs. The condition had lasted for ten years, with a short interval, during which he was said to have been cured by sulphur baths.

Dr. EBBINGHAUS (introduced) showed a woman aged 27 years, suffering from pain and atrophy of seven years' duration, affecting the right index finger. The pain had begun at the edge of the finger-

nail on the outer side of the finger, and had gradually extended, in spite of all treatment, until the finger had become perfectly useless owing to its extreme general tenderness. The skin of the finger was slightly glossy, and had lost most of the usual folds, especially on the distal phalanx. A skiagraph showed that there was well-marked rarefaction of the bone of the last phalanx. The diagnosis suggested was that the case was one of ascending septic neuritis, possibly due to a slight traumatic infection at the edge of the nail.

Dr. COLCOTT Fox presented an infant aged 10 months, suffering from *sclerema* of the abdominal walls and buttocks. The infant was the twelfth born to the parents. Three died of whooping-cough or bronchitis, and nine are living and well. The patient was always small, but born at full time, and was always crying and whining, and the bowels were habitually constipated. The mother brought the baby to the Westminster Hospital for wasting at three months old, and for what the mother characterised as a "bladder" on the right flank, which had been noticed for two months. Dr. Purves Stewart then detected the sclerema, and the child was admitted to the hospital. Since the child has been under observation the condition has altered very little. The abdominal walls are diffusely thickened, but do not pit on pressure. The surface is rather glistening from stretching, and slightly coloured from venous congestion. The surface is not cold like marble. In the last few weeks the wall has become softer and the surface uneven, simulating nodulation, and a similar condition is noticeable on the buttocks. If these "nodules" be examined, it is found that they are really thinned areas of skin bulged out. It was an area of this kind that the mother characterised as a "bladder." Dr. Fox called attention to the insidious nature of the malady in this case. It is evident that the induration began at a very tender age, but passed unnoticed by the mother. The child is now fairly well-nourished, although at one time wasting. Otherwise the child was healthy. The exhibitor said he had only seen about half a dozen cases of sclerema, and they were all of the type seen in this child; but one got a very different impression from reading the description of sclerema in the books, where the extreme gravity of the disorder, the cold marble-like induration, and the lung and circulatory complications were brought into great prominence. *A propos* of a case shown

to the New York Dermatological Society in 1882 by Dr. Robinson, this change in type was noted. The cause was a great puzzle, but it was very suggestive that with improved hygienic conditions sclerema should have almost disappeared, like puerperal fever. It certainly looked as if sclerema was an infective disease.

Dr. GALLOWAY showed (1) a case of *morphœa* involving the distribution of the right fifth nerve. The patient was a woman of about thirty-seven years of age, and had previously been shown some years ago at the Society. Of recent years several changes of importance had occurred, and it was for this reason that Dr. Galloway now brought the case forward. A well-marked patch of permanent sclerodermia occupied the right frontal region, commencing above the orbit and spreading backwards along the distribution approximately of the right supra-orbital nerve to about the position of the lambdoid suture. This patch was limited very accurately by the middle line, and on its outer side it had a curved outline with the concavity pointing inwards, owing to the presence of unaltered skin in the distribution of the branches of the auriculo-temporal nerve. A small rounded patch of *morphœa* was also noticeable on the upper portion of the right nasolabial fold. In addition to these changes there appeared to be shrinking of the tissues of the right side of the face generally, a condition which had become more marked of recent years. The most important alteration, however, which had occurred was the very remarkable shrinking of the tissues in the right orbit, as the result of which the eyeball had retreated within the orbit so as to present a noticeable want of symmetry in the position of the two eyes. The eyelids themselves seemed to be freely movable, and were unaffected by sclerodermic changes. As to the condition of the eyeball, no definite information could be given. She had good vision in the right eye; no retinal or choroidal changes were present. There was present a certain degree of hypermetropic astigmatism, and it was a fact that the alterations in vision due to these changes had become noticeable within the past few years. The left eye was also hypermetropic, so that it would not be fair to conclude that any changes of the sclerotic coat of the right eyeball had been produced. Another condition had recently been complained of by the patient—namely, an increasing and permanent deafness. In view of the important changes in the

distribution of the right fifth nerve, Dr. Galloway had sought the opinion of Mr. Waggett as to the condition of the patient's ears. It was reported that the disease was not of catarrhal origin, but was due to marked oto-sclerosis, and that the deafness was much more marked in the left ear than in the right. The nasal mucous membrane of the right side was dry and atrophied, and there was distinct and obvious shrinking of the right nostril and ala nasi. It could not be concluded, therefore, that the distribution of the glosso-pharyngeal nerve in the ears showed alterations analogous to those occurring in the distribution of the first division of the right fifth nerve. It was clear, however, that the mucous membrane of the right nostril showed changes corresponding in character to those obvious in the skin. Dr. Galloway reported that no alterations had been observed in the buccal or pharyngeal mucous membranes, nor in the distribution of the third division of the fifth nerve, though apparently a certain amount of change had occurred in the area usually supplied by the second division—for instance, about the right naso-labial fold and right ala nasi. The patient was in good health, and suffered no inconvenience, except on account of the alterations in personal appearance, which had become more noticeable during the past few years. Dr. Galloway brought the case forward as the opportunity was given of observing the progress of a well-marked case of morphœa, and also on account of the changes, especially as the orbital tissues and nasal mucous membrane had become involved. The case also might serve as a warning against the hypothesis which might be readily arrived at, that the distribution of the glosso-pharyngeal nerve to the ears was affected in a manner similar to that of the fifth. It was clear that the statement was too wide a one to say that the changes in the ear had no reference whatever to those of scleroderma, for the actual process producing deafness showed in itself clinical aspects of a nature comparable to true scleroderma.

(2) A case of psoriasis in a woman aged 35. This was the first attack of psoriasis from which the patient had suffered, and was of four months' duration. It was remarkable on account of the tendency of the crusts to become heaped up, to remain firmly adherent to the surface, and so to produce the aspect of "rupia." It was a well-marked example of the type of psoriasis to which the name of *Psoriasis rupioides* was sometimes applied.

Dr. GRAHAM LITTLE showed (1) a case of *linear sclerodermia* of the forehead in a medical student aged 24. Slightly to the left of the middle line of the forehead, a furrow, starting from the junction of the hairy scalp with the skin, and being continued on to the scalp for a distance of about two inches, could be both seen and felt; it was from one eighth to a quarter of an inch broad, and about a sixteenth of an inch deep, the surface being distinctly reddened, but not scaly or definitely cicatricial. Upon the forehead itself a very faint depression could be felt continuous with the line on the scalp, which was at right angles to the transverse axis of the head. The condition had been noticed only for four months; there were no lesions anywhere else. There had been no subjective sensations with its development, the atrophy being the first thing to be noted by the patient, and this being observed only by the accident of his comb being caught in the depression while performing his toilette. The case was curiously like the patient shown by the same exhibitor (*British Journal of Dermatology*, 1902, p. 467) in whom the linear sclerodermia had occurred on the right side of the forehead, with prolongations on the scalp and the nose. This case had been claimed by Dr. Wilfrid Warde as a case of Lupus erythematosus of the sclerodermic type (*British Journal of Dermatology*, 1903, p. 277), and it was possible that an alternative diagnosis of Lupus erythematosus might be suggested in this case; but the duration seemed too short for the amount of atrophy actually present to be due to the latter disease.

(2) A case of a young married woman, who was shown to this society in February, 1901, as a case of *Tuberculosis cutis*, a diagnosis which was much traversed at the time of showing. The note recorded at this date is as follows:—"The patient is married and aged 22. There is no history of syphilis, unless one miscarriage at three months can be accepted as evidence of this infection. She has had a child since this accident who shows no signs of syphilis, and is now eleven months old. One sister of the patient died of phthisis six years ago (not of syphilis, as stated by a misprint in the notes). She has two raised, very vascular tumours, consisting principally of granulation tissue, denuded of skin, and as big as half-crowns on the lower part of the right forearm, the disease being dated from eighteen months previously. On the inner part of the right forearm there are two smaller and later patches of infiltrated, slightly scaly dermatitis, but

the surface of the skin is intact over these. With the diascopé, faint white scarring is to be observed in these positions. On the face there is a patch, the size of a sixpence, of slightly raised red skin, also showing minute atrophy." Subsequent history :—The diseased patches on the forearm were treated with simple antiseptic dressings, and all healed perfectly within a month, leaving depressed scars, which are still plainly visible. The rapidity of the healing seemed at the time to negative the diagnosis of tuberculosis, which had been, moreover, much combated at the meeting. The patient was lost sight of for nearly two years, and was not seen again until about three months back. She states that about six weeks after the places on the arm had healed, patches on the face appeared, and she went to the London Hospital and had the Finsen light treatment applied to the lesions on the face, which were diagnosed as *Lupus vulgaris*. She now shows typical and extensive lupus of the face and nose. The development of definitely tubercular disease of the skin shortly after the disappearance of the patches on the arm gives colour to the opinion that these also were tubercular. Their disappearance in so short a time is paralleled by the similar case shown by Dr. Sequeira (Dermatological Society of London, October, 1903). In this latter case ulcers, which were considered by a large majority of those who saw them to be tubercular, also healed rapidly—within a month—with weak antiseptic dressings and rest in bed.

Dr. J. M. H. MacLeod showed a boy aged 14 years, suffering from *Lupus verrucosus* affecting the left hand. When he was first seen by the exhibitor at the Victoria Hospital for Children a diseased patch was noticed on the ulnar side of the left hand extending from the prominence of the fusiform bone down to the middle of the dorsal aspect of the proximal phalanx of the fourth finger. Limiting this patch towards the middle line on the back of the hand, there was an irregular border about 6 mm. in width, and raised about 2 mm. above the level of the surrounding skin. It was deep red in colour, and covered by adherent scales. Over the distal ends of the fourth and fifth metacarpal bones, and extending on to the skin of the corresponding proximal phalanges, there were two irregularly rounded plaques about 1.5 cm. in diameter. About the wrist several brownish-red nodules about the size of a split pea were present. Towards the

outer edge of the hand the raised border faded gradually into a patch of atrophic skin. There was no ulceration associated with the lesion, and the scales which were adherent to the raised portions of it somewhat resembled those of *Lichen planus hypertrophicus*. The left hand was the only region affected, and the boy seemed to be healthy otherwise, had enjoyed excellent health previously, and came of a healthy family in which there was no history of tuberculosis.

The disease began on the back of the hand when he was fourteen months old, and had spread very gradually. For the last six years the boy had been under the care of Mr. Waterhouse, to whom Dr. MacLeod was indebted for the case. It was treated by cauterisation and by painting with strong salicylic-collodion solution, by which means it had on one occasion almost entirely disappeared, but it slowly recurred.

Since he came under the observation of the exhibitor on October 27th, he had been treated with radium with benefit, and the raised linear patch had now been flattened down to almost the level of the surrounding skin. Beyond the patch there was a halo of erythema with a purple tinge, which was the result of the reaction of the skin to the radium rays. The lesion had been subjected to exposure to a tube containing 5 mg. of radium bromide of about 600,000 activity. The tube has been applied to the skin in a metal tray for half an hour twice a week, and latterly the length of exposure had been increased to two hours. Owing to the thickness of the scaly, raised patch and the resisting power of the skin of the back of the hand, the exposure had resulted in comparatively slight reactions; but the rays invariably caused redness and itching, and with the long exposure a mild degree of pain, which began soon after the exposure and lasted for varying times up to twenty-four hours.

Mr. MALCOLM MORRIS showed a man who had suffered from the *hypertrophic form of Lichen planus* for nine months, coming on in very obvious relation to severe and prolonged mental worry. The disease had begun about the ankles and spread up the legs as far as the knee, and more recently had also attacked the mucous membrane of the cheeks. The fronts of the shins were very thickly covered with oval patches of a purplish-red colour, standing about a sixteenth of an inch above the surrounding skin, and showing on the surface characteristic pumice-stone-like keratosis.

Dr. MÜLBERGER (introduced) showed a girl of 23 years who had a *circular ulcer* on the extensor surface of the right forearm, close to the elbow. The ulcer had existed for four months, and was about two and a half inches in diameter. The centre had healed with the formation of a somewhat irregular scar, so that the actual area of ulceration when shown was a ring of about half an inch in breadth. The edge was somewhat steep and a little rolled, but did not suggest either syphilis, tubercle, or a malignant tumour. The search for parasites had been negative so far.

The members all admitted that the case was one of difficulty, and thought that the first step must be to exclude the possibility of artificial production. There seemed to be some points suggesting such a diagnosis, but the case was by no means clear.

Dr. F. G. PENROSE showed a child aged 4½ years, who had always had a healthy skin until she had an attack of broncho-pneumonia a short time back. There had been a febrile temperature for some time, and there had also been a good deal of wasting. The skin had slowly assumed a rough and scaly appearance, such as those engaged at children's hospitals were accustomed to associate with tubercular disease. The child had been repeatedly tested with tuberculin with negative results, and Dr. Penrose therefore brought the case forward for discussion. On exhibition it was to be seen that almost every follicle was erect and slightly hyperkeratotic, while there was a fine diffuse scaling all over the trunk; there was no grouping of any of the lesions, and the secretions seemed to be entirely in abeyance, the appearance generally being exactly like that of the mildest form of ichthyosis.

Dr. WHITFIELD said that this was what had been known for a long time as *Pityriasis tabescentium*, and although it was more common in children—and especially those suffering from tuberculosis—it was by no means confined to them. He had seen it repeatedly in adults suffering from wasting diseases, and especially, perhaps, in carcinoma. He had also been struck with the frequency with which it was seen at the Seamen's Hospital when he was taking duty there, and he felt certain that it could occur from simple inanition. He thought the most probable explanation of its occurrence was that owing to the debilitated state of health, and possibly the consumption of the normal subcutaneous fat, the epithelial cells did not pass through the complete cycle of changes necessary for the production of a normal horny layer, and that consequently the scales adhered and gave the hyperkeratotic appearance. He thought it probable that microscopic examination would show that the cells were partly nucleated,—in fact, that there was a mild condition of parakeratosis present.

Dr. SEQUEIRA showed (1) a single woman aged 28, suffering from *Lupus erythematosus* of the disseminated type. The disease had an acute onset six years ago, and there had been exacerbations and remissions. She was first seen by Dr. Sequeira in August, with an acute outbreak. The disease involved the lips, forming a ring round the mouth, the cheeks, ears, scalp, and both hands and feet, and the back in the lower dorsal region. On the buccal mucous membrane behind the last molar teeth on the right side there was a small superficial patch of ulceration. The patient was very anæmic and ill-nourished, but there was no evidence of active tuberculosis clinically. The urine contained albumen varying from one eighth to one sixth on boiling. No casts had been found in the deposit. There was a history of tuberculosis on the mother's side. Much benefit had been derived from the administration of salicin in twenty-grain doses three times a day.

(2) A married woman aged 50, who had contracted *syphilis* from her husband thirteen years ago. She had had two healthy children, aged respectively sixteen and fourteen years, and one miscarriage six years ago. She gave a complete history of secondary manifestations, and nine years ago had what she described as an attack of erysipelas, and since then there have been eruptions upon the face and trunk. Some of these had undoubtedly been gummatous, and had left scars upon the neck and shoulders. She was now shown for a peculiar condition of the scalp, neck, and face. The eruption was of a scaly variety, and suggested seborrhœic dermatitis. This was seen over the whole of the scalp, on the nape of the neck, and behind each ear, on the lobules of the ears, the right eyebrow, and the right cheek. The patches were in parts very well-defined, and on palpation the defined edges were felt to be slightly indurated. The centre of the patch upon the right cheek showed definite superficial atrophy. The patient was rather vague as to the exact duration of the present eruption, but there seemed to be no doubt that it had been present at least two or three years. A similar condition is said to have affected the left cheek, but that now presents no abnormality. The tongue was characteristic of syphilitic superficial glossitis. The voice was rather hoarse, but Mr. Hunter Tod, who had examined the throat, found that the larynx was quite healthy. There was a little scarring of the pillars of the fauces, but as the tonsils had been removed by

operation Mr. Tod thought that these cicatrices were probably due to operation. Dr. Sequeira raised the question whether the eruption should be considered as being entirely syphilitic, or whether the case was one of seborrhœic dermatitis modified by syphilis.

THE DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

A MEETING of this Society was held on Wednesday, November 25th, 1903, Dr. R. L. BOWLES in the chair.

The following cases were exhibited :

Dr. GRAHAM LITTLE showed (1) a case of *juvenile flat warts* in a boy aged 10 years. These were very closely aggregated on the forehead, and seemed to have developed in the site of freckles, the warts being distinctly pigmented. They had lasted for five months without undergoing any perceptible change. There were a few on the hands, of the common papillomatous type. The incidence of the eruption on previously existent freckles was interesting, especially with the possibility of supervening Xeroderma pigmentosum in one's mind, but there was no suggestion of the latter disease in the present case.

Dr. BOWLES, commenting on this case, observed that he had seen the connection with freckles before, and had always had the thought that pigmentation in these cases was the forerunner of inflammation.

(2) A case of a *tertiary syphilitic ulcer* of the upper lip in a woman about thirty yearsold. The interest of the case was in the extraordinarily close resemblance the ulcer bore to a hard chancre in the same position, the lip being distinctly indurated ; but the diagnosis of a hard chancre was contradicted by the entire absence of glandular enlargement. The ulcer had lasted for four months ; there was no specific history, and no previous general rash.

Mr. PERNET had seen a very similar case in a man in whom the resemblance of a tertiary ulcer on the lip to a hard chancre had also been remarkable.

(3) A case of *tertiary syphilis* in a man aged 35, who had had the primary sore seven years previously while in the army. He had been

treated for this apparently for some months after the sore had disappeared. Four years ago he had sustained an injury from a knock on the left leg, and since that time he had constantly had the ulcers on the leg, which had not healed in the smallest degree. At the present date he had an ulcerated surface, covering some three inches by two, on the anterior aspect of the left leg; the ulcers were sinuous in outline and rather deeply excavated. Four months ago he had noticed the invasion of the nose, which was now much swollen at the tip, indurated, and very red. The chronicity of the ulcers on the leg might be thought to be suggestive of tuberculosis, but the disease of the nose had made too rapid progress for this diagnosis to be acceptable.

Mr. GEORGE PERNET showed a case of *syphilitic alopecia* of the scalp from Dr. Radcliffe-Crocker's clinic, University Hospital. The patient was a man aged 33, who had been losing his hair for about three months. The irregular Alopecia capitis was characteristic of syphilis, and this was confirmed by the scar of a primary chancre of the prepuce near frænum. The chancre was first noticed at the end of May last. There was also characteristic inguinal adenitis still present. The eyebrows were not affected.

In discussing this case the question arose as to the frequency with which alopecia occurs in early secondary syphilis.

Mr. HITCHINS stated that loss of hair was almost a constant symptom.

Dr. STAINER, Mr. PERNET, and others were of opinion that hair did not fall out in the majority of cases, as text-books on the subject led one to expect.

Mr. SHILLITOE said that the reason why alopecia was not more frequently seen was that the patients responded to specific treatment.

Dr. RUTHERFORD showed a married woman aged 38, the subject of *Lupus erythematosus*. Symmetrical patches about the size of half a crown were seen on the temples, a single patch of erythema at the root of the nose spreading on to the forehead; and a few isolated patches the size of a threepenny piece on the crown of the head and nape of the neck were also noticeable. The patches on the temples were bluish red and atrophic, with slightly raised margins. The disease had existed for three years.

Mr. PERNET and others agreed with this diagnosis.

Dr. T. D. SAVILL showed a case of *urticaria* produced by emotion. The patient was a boy aged 8½, who had to be taken from school eight or nine weeks previously because of the wheals which appeared on his face and upper part of the trunk whenever he worried over his lessons, or was teased by the other boys. In the evening an effort to learn his lessons produced an attack, and any emotion or source of nervousness would cause the eruption to appear. The eruption consisted of definitely raised wheals surrounded by the usual zone of congestion. The attacks lasted from one to three hours if the emotional cause were removed. His mother stated that he was an extremely nervous, sensitive, and excitable child. The gastro-intestinal functions were quite normal. Dr. Savill remarked on the analogies of the skin and central nervous system, and expressed the belief that the occurrence of similar congestive and exudative lesions in the latter was the lesion which resulted in the motor and sensory disorders of hysteria.

Mr. ARTHUR SHILLITOE showed (1) a case of the *corymbosae syphilide*, a full report of which will be published later.

(2) A case of *ecthymatous syphilis* in a printer aged 26. The patient was married. His father died, aged 50, of phthisis, and his mother, aged 52, of apoplexy. He had three brothers and three sisters, who were all healthy, as were also his wife and four children. Since quite early childhood, when he was said to be delicate and the subject of some wasting disease, he has never known a day's illness. He has never been a heavy drinker, and has always had continuous employment. He states that coitus took place some six weeks ago, and that four days later he noticed a small sore the size of a pin's head on the right side of the glans penis. This gradually increased in size, and on examining him (November 23rd) he was seen to be in a very poor, low condition, with phimosis and purulent discharge, together with ulceration of the prepuce and right side of the sheath. The trunk, back and front, and upper part of front of right thigh, and scalp, were thickly sown over with black ecthymatous patches, each, roughly, one inch in diameter. The black scabs have been removed, leaving the shallow, saucer-shaped ulcers seen. He also has mucous tubercles on the soft palate and tonsils.

Dr. WILFRID B. WARDE thought that it was a case of mixed infection, and

that a condition not unlike ecthyma was present, in addition to the specific virus of syphilis.

Dr. GRAHAM LITTLE pointed out that some of the papules in the neighbourhood of the ulcers resembled those of psoriasis, and quoted a case he had already shown in which syphilis and psoriasis were present at the same time.

Dr. TRAVERS SMITH showed a boy aged 12, the subject of *Dermatitis artefacta*, who had on either side of his gluteal region a patch about the size of the palm of the hand, which at a first glance might have suggested lupus, or possibly *Erthyema multiforme*. A closer examination, however, could leave little doubt as to its being a factitious rash. Some tingling, the boy said, had preceded its appearance. Investigation, and cross-examination of his family at his domicile, had elicited the fact that his mother, as well as another woman occupying the next rooms, habitually used carbolic acid for disinfecting purposes, and threw more or less strong solutions of it into the water-closet. It seemed, therefore, not unlikely that it was there the boy had been accidentally burnt.

Dr. STAINER showed (1) a girl suffering from a *Papilloma lineare*, distributed on the extensor surfaces of both arms. The mother stated that the lesions began to appear when the child was six months old. The case was first seen by the exhibitor in July last, and at that time the linear areas were studded with flat irritable papules, simulating those of *Lichen planus*. At the present time the same areas were recovering from an acute discharging dermatitis, and where this had subsided the primary papillomatous lesions could definitely be seen.

(2) A girl aged 9 years, who had well-marked hyperkeratosis of palms and soles of twelve months' duration. During the last few weeks some rounded, shotty papules, centred with horny plugs, had appeared on the fronts of the legs. The exhibitor suggested the diagnosis of *Lichen ruber acuminatus*, and thought that the hyperkeratosis present supported this.

Mr. HITCHINS said the centres of several of the papules were occupied by a superficial necrosis, and not by a horny plug, and that he looked upon them as tubercular in character.

Dr. GRAHAM LITTLE considered that the lesions belonged to the tuberculide group, and that the association of the hyperkeratosis was accidental.

Dr. WILFRID WARDE showed (1) a case that he was inclined to call "cold eczema." A young man aged 17, a glass polisher, had suffered from the present condition for four winters in succession. Only his hands and face are affected. There is a spongy eczematous condition involving the prominent part of the wrists, *i.e.* the radial aspect of the dorsum, and the extensor aspect of most of the knuckles. The face is now relatively free, but has been a good deal swollen, and is often scaly. The eruption begins with the cold weather and does not improve till the warm weather sets in. In the interval the skin now shows a chronic lichenisation.

(2) For Dr. Marshall, a woman aged 27, with an eruption on the chin. Some years ago there was a small boil in the centre of the chin about half an inch below the lower lip. An induration still marks the site of this. The eruption extends from this boil, and appears as a cluster of small red papules about three quarters of an inch by half an inch in area. With the diascopé a yellow staining could be made out, but this might be due to pigment. There was a very strong history of tuberculosis on the maternal side, involving at least three generations. All the mother's brothers and sisters had died of that complaint, as also some of the patient's brothers and sisters. Dr. Warde was inclined to think it was a case of commencing *Lupus vulgaris*, and Dr. Marshall entertained the same suspicion.

CURRENT LITERATURE.

THE CLINICAL AND PATHOLOGICAL CHARACTERS OF VELD SORE PREVALENT AMONGST THE TROOPS IN SOUTH AFRICA. N. BISHOP HARMAN. (*Journ. of Path. and Bact.*, vol. ix, No. 1, August, 1903.)

WE are glad that this paper has been published in full in the current number of the *Journal of Pathology*. Accounts of Mr. Harman's work have appeared since his return from South Africa in various quarters. But it is satisfactory to have his observations brought together in a convenient form for reference, as in the paper before us.

Since the return of the troops from South Africa many examples of the disease have been seen in London, usually more or less healed, and those who have suffered from the disease emphasise the report of the great inconvenience and the large amount of invaliding brought about by this intractable condition.

The sore as usually seen is a superficial ulcer edged by a fringe of exfoliating

epithelial tissue and an areola of inflammatory redness. The duration and intractable character of this sore, which appears to be so simple, is one of its characteristic features. Mr. Harman makes the remark that though it makes its appearance as the result of small scratches and injuries, usually in the extremities, in the case of men who describe themselves as being in perfect health—"as hard as nails,"—yet usually it will be noted that these men have been for some time exposed to the hardships of life on the open veld, with a comparatively limited dietary.

The sore commences as a small blister or a group of blisters, so superficial that the nature of its contents can be judged. The ulcer resulting from the breaking of this vesicle is also superficial, and looks like the floor of a freshly opened cantharides blister. But in contradistinction to the cantharides blister the veld sore will not heal, will remain open for months, and not infrequently commences to exude pus fairly freely as the result of secondary pyogenic infection. The sore will scab over and give the impression of healing properly, but when the scab is removed the ulcer exuding sero-pus is as obvious as ever. It is rare for other symptoms to make their appearance locally, but, as may be expected in bad cases with much secondary infection, inflammation and suppuration of neighbouring lymphatic glands are likely to occur.

Mr. Harman makes the interesting note that in certain cases the bites of the common brown horse-fly and of other insects, and the effects of the sun's rays, seem to be a possible source of veld sores, although abrasions, mechanical injuries, are by far the most common mode of origin.

The most frequent site of the sore is the extensor surface of the upper extremity from the elbow to the digits. The corresponding region of the lower extremity is affected to a very much less degree. The sore seemed to occur mainly amongst the whites, both British and Boer. The Indian subjects employed in various capacities during the war, and the negroes, appear to have escaped infection almost entirely.

Of the troops, the horsemen were most frequently affected, probably on account of the greater liability of mounted men to abrasion in handling their mounts, dealing with harness, wagons, guns, etc. The mounted troops, too, as is well known, suffered their full share, and perhaps a little more, from want of proper feeding, the conditions of their work keeping them ahead of their commissariat, and so diminishing their food-supply.

That the disease was well known amongst the Boers is recognised by their special names. The Transvaalers know it as the "gift zeer;" in the Orange Free State "brand zeer" as well as veld sore. The same condition seems also to occur in other parts as Natal sores and boils, and some of the Australians recognised it as a condition which is designated in North Queensland as the "Barcoo rot." In the region of the Barcoo River the country is hard and dry, and there is very little vegetation or animal life; the men feed on salt meat, damper black tea and sugar, but get no milk or vegetables. The sores last a long time, and are very difficult to deal with in the Bush, for they resist all antiseptic treatment, though they do not perceptibly affect the true skin. They are cured rapidly on coming down country when good food is obtained.

In course of time, especially under favourable hygienic conditions, healing takes place with very little destruction of the skin. Even the hairs on the affected

part may be restored. Scars of the uncomplicated sore, therefore, often disappear in process of time; but when ulceration has occurred with destruction of the true skin, owing to secondary infection, then scars of ordinary nature and permanent in character will be produced.

Mr. Harman found that the ordinary methods of treatment by means of superficial antiseptic or protective dressings, simple strapping, etc., were of little avail. It was necessary to remove the superficial epidermis for a considerable area beyond the actual blister or sore, as the cocci associated with the disease can be seen penetrating the layers of the stratum lucidum in advance of the blister edge. The ulcer-surface is then rubbed vigorously with lint soaked in a solution of mercuric chloride (1 in 1000) and dressed with the same solution; or, as wet dressings can be used only with difficulty on active service, the sore may be first well cleansed, rubbed to bleeding, and every shred of removable epithelium torn off with fine forceps. The surface is then dusted with calomel and a wad of absorbent wool applied and fixed with adhesive strapping.

Mr. Harman then gives an account of an interesting bacteriological investigation of the micro-organisms associated with this sore, which was commenced in South Africa and continued in London. The organism which was noticed as the most constant feature is a diplococcus, staining readily with the aniline dyes and retaining the colour when Gram's method is used. A slight flattening of the contour at their contiguous surface is noted, but not to such an extent as occurs in the micrococcus of gonorrhœa. When preparations were made from cultures capsulation was noted.

The description of the cultures obtained clinically is noteworthy, both on account of the results obtained and the criticisms suggested.

The appearance of the growth obtained from this case was very uniform—smooth, circular colonies rapidly colouring yellow, and producing, on agar-agar, rich paint-like streaks. These colonies were found in all five cases from which cultures were obtained. In three of these cases the cultures were pure. Two cases only gave any variation from the general form. In one of these (1) there were a few white colonies of staphylococci; in the other (2) there were found small granular colonies which, in film preparations, showed a more streptococcal form of arrangement; but in both cases by far the greater number of colonies were those producing a rich yellow colour, and consisting of zooglœa masses.

A number of comparative and control experiments were made with this organism and the *Staphylococcus pyogenes aureus*. The point of most interest arising in connection with these was the greater resistance of the organism to destruction in various circumstances.

To complete his observations Mr. Harman did not hesitate to use himself as the final step in the experiment. From one of his cases in which a pure culture of the cocci was obtained, he inoculated himself with some of the original fluid from a blister. An area of skin on the extensor surface of the left forearm having been shaved and sterilised, was inoculated with the blister fluid. The following is the history of this experiment:

Sixteen hours.—A small bleb like a seed pearl has appeared at one end of the abrasion.

Twenty-nine hours.—The bleb has extended so as to enclose one end of the abrasion; the abrasion has scabbed.

Forty hours.—The bleb has increased in size ; there is no pain.

Sixty-six hours.—The bleb has ruptured. From the fluid contents, which appear to the naked eye as plain serous fluid, film preparations and a culture were made. The film shows a fair number of pus-cells and some epithelium *débris* ; there are a few cocci disposed as diplococci, which have an appearance of capsulation. The culture grew in twenty-four hours, showing several discrete colonies, which turned yellow and proved to be composed of cocci disposed as staphylococci.

Four days.—The free edge of the ruptured bleb appears to be gummed down by dried discharge ; the raw surface is scabbing.

Five days.—No change ; seems likely to heal without further progress.

Seven days.—Spreading fairly rapidly ; no subjective symptoms.

Eight days.—Quite a large blister of horse-shoe form surrounding the scab ; it is about the size of a sixpenny piece. The bleb was opened aseptically, films made, and agar smears placed for incubation.

Films.—Show few pus-cells, but numerous epithelial cells ; the cocci are numerous, and disposed as diplococci, with a suggestion of capsulation ; a few tetrads are seen, also diplococci in clusters and short chains.

Culture.—In twenty-four hours showed a vigorous growth as a rich paint-like streak ; it consisted of a pure culture of cocci.

Nine days.—The sore itched very much, so as to be an annoyance. I therefore stripped off the whole of the epidermis of the blister and its surroundings as far as possible ; also removed the scab, leaving a clean-looking, raw surface, which oozed blood at a few points. This was covered by aseptic lint and strapped.

Eleven days.—The site of the sore is covered with thin silvery scales of dried epithelium and serum.

Thirteen days.—The silvery scales covering the site were rubbed off ; beneath was found a shining, bluish-pink, healed surface. The area is slightly thickened to the feel on pinching it up.

Two months.—The scar is plainly visible as a bluish-pink stain ; the hair has grown.

Four months.—The scar is still plainly visible.

Throughout the whole duration of the sore there were no constitutional symptoms or suggestion of lymphatic infection.

This experiment was repeated apparently successfully, using a remote sub-culture which had been kept alive for some months.

The experiments on animals (rabbits) produced negative results.

An account is then given of the histology of the veld sore, the description being that of an irritant producing vesication and lifting of the upper layers of the epidermis. The basal layers of the stratum mucosum appear not to be removed. The cocci are disposed as diplococci, whether isolated, in chains, or in clusters of diplococci. In Mr. Harman's words, "The tissue changes described are those assignable to an irritant working primarily within the epidermis, in the stratum lucidum ; the irritation is not severe, but of sufficient strength to cause destruction of epithelial cells and vesication. It is not unreasonable to presume that the cocci found where these changes are seen are the cause of these changes. The cocci are not found in the healthy portions of the specimen."

Mr. Harman then considers the question whether the diplococcus is a special organism which may be spoken of as *Micrococcus vesicans*, or simply an attenuated form of the *Staphylococcus pyogenes aureus*.

All those who have worked at the bacteriology of the skin will appreciate the difficulties which he has to encounter in venturing upon this differential diagnosis, and whatever view is taken as to the prudence of this differentiation, there is no harm done by the statement which he makes, which is as follows:

From the consideration of the data afforded it would appear that four considerations may be held sufficient to differentiate this organism from the *Staphylococcus pyogenes aureus*:

1. The distinctive features of the lesion.
2. The appearance of the organism uniformly as a diplococcus.
3. The greater luxuriance of the growth of the organism on nutrient media.
4. The greater resistance to destruction exhibited by the organism.

Mr. Harman's paper concludes with two notes—one on the Natal sore, which appears to be a local skin abscess, a condition of common occurrence in hot moist climates; and another short note upon the differential diagnosis of "geographical sores."

The paper is well illustrated, and gives a very interesting and complete account of the condition which gave so much trouble to our troops in South Africa.

J. G.

ON CIRCUMSCRIBED SEBACEOUS ADENOMA. CH. AUDRY. (*Ann. de Derm. et de Syph.*, July, 1903, p. 563.)

THE limitations of this term are meant to exclude the multiple or diffuse tumours of the skin which have been described as "*Adenoma sebaceum*" by Balzer, Pringle, Besnier, and others. It also excludes the multiple tumours of the scalp described by Poncet-Bérard, Barlow, and others. Audry in part defines his meaning as that of "a tumour constituted by a new formation of sebaceous glands, more or less modified, but always recognisable." He separates the term further from *nævi*, since the histology of the latter is different; and he deprecates in passing the application of the term *nævus* to all congenital tumours as such. He examines previously reported cases which appear to be of the same type as the subject of the paper, and admits only four observations—those of Robinson, Pollitzer, Ajello, and Bandler.

The case here reported occurred in a street-musician, a man aged 48. In 1893, in Tonkin, he received a wound on the right cheek from a bamboo lance. In 1895 for the first time he noted on the site of the previous injury an eruption of small elevations centred round a larger tumour. In 1897 the central tumour appears to have been excised while the man was in Algiers, but others appeared soon after and coalesced. On admission, in May, 1903, he presented a quadrangular patch on the right cheek, made up of small elevations, which were soft but solid, of a brownish-red colour, covered with scales which concealed here and there cavities, from which a fatty matter could be extruded by pressure. No hairs could be seen in the middle of the lesion, although the patch encroached upon the beard. The patch was freely movable on the deeper tissues, and there were no subjective symptoms. The redness could be expelled by pressure with a glass slide.

The affected patch of skin was excised entire and examined histologically. The epidermis was thinned; the basal layer was normal; the prickle-cell zone consisted of two or three layers of cells; the granular stratum was hardly visible; one or two layers of horn-cells, only slightly adherent, could be seen; there was no

inflammation or cedema, but a certain degree of parakeratosis was remarked; numerous follicular orifices, filled with horny *débris*, were present. The corium was absolutely normal, with the exception that there were some infiltrated cells round the vessels and the hair-follicles; the cells being chiefly lymphocytes, with occasional mononuclear leucocytes. In no part of the section could the collections of cells found in *nævi* be seen. The greater part of the tumour seemed to be made up of enormous sebaceous glands, these being increased in size rather than in number, and penetrating deeply into the hypoderm, far below the level of the sweat-coils. Occasionally cystic dilatation of these glands was found. The connective-tissue fibres seemed normal, except that elastic tissue was deficient.

Two figures, one of the clinical aspect and one of the histological features, illustrate the paper.

E. GRAHAM LITTLE.

A CONTRIBUTION TO THE STUDY OF THE TUBERCULIDES.

NICOLAU. (*Ann. de Derm. et de Syph.*, October, 1903, p. 713.)

THIS is a research emanating from the laboratory of Dr. Gastou and from the Dermatological School of St. Louis, re-constituted recently with such happy success.

The author considers that the following types of disease may at the present time be properly included in this group:

1. Acnitis and folliclis of Barthélemy.
2. Acne cachecticorum.
3. Lichen scrofulosorum.
4. Lupus erythematosus of Cazenave and its varieties.
5. Disseminated Lupus erythematosus of Kaposi.
6. Lupus pernio.
7. Erythema induratum of Bazin.
8. Certain varieties of nodular lupus in multiple patches (Darier).

It is noted that the lesions of some cases of Lichen scrofulosum have been demonstrated by Jacobi, Haushalter, and others to contain tubercle bacilli, and to give positive results with experimental inoculation of guinea-pigs, Jadassohn in particular finding positive results in fourteen out of sixteen cases.

In Erythema induratum, with Thibierge and Ravaut a positive result followed inoculation, but bacilli have not yet been demonstrated in this affection.

In a case of folliclis Philippon discovered undoubted bacilli in sections, and obtained a positive result with inoculation in guinea-pigs; and the observation to the same effect of MacLeod and Ormsby is duly noted.

Three tests are claimed by the authors as establishing a tubercular causation: (1) the finding of bacilli, which is naturally the most positive of all; (2) positive results of inoculation in guinea-pigs; (3) reaction to tuberculin.

Of these various types of disease two classes are distinguished, after Darier: (1) those like acnitis, Lichen scrofulosum, Erythema induratum, and disseminated nodular lupus, which have a typical tubercular infiltration, with plasma-cells, giant-cells, and so on, and a marked tendency to degeneration; and (2) those like Lupus erythematosus, which are characterised by perivascular infiltration and foci of degeneration. Hallopeau's theory that the lesions of these groups are caused by toxins of tubercle bacilli is stated to be now untenable, and it is claimed that

all are due to tubercle bacilli, but of an attenuated, little-virulent type, a fact which explains their diminished pathogenicity to animals. To test this theory the author has made a series of inoculations with tubercle bacilli of an attenuated virulence, this condition being attained by subjecting the bacilli to a temperature of 120° for fifteen minutes. With these injections nodules developed at the point of inoculation, with the histology supposed to be typical of tuberculosis—giant-cells, plasma-cells, epithelioid cells, and so on, with occasional bacilli in the giant-cells. A control experiment was made by injecting the toxins of the bacilli, obtained by filtering a three-month-old culture of tubercle bacilli in broth. No local or general tuberculosis followed inoculation.

The paper closes with an excellent report of a case of acnitis of the face, with a chromo-lithograph exhibiting the histology of one of these lesions. No tubercle bacilli were found in any of the sections. It was not possible to make experimental inoculations.

E. GRAHAM LITTLE.

A CASE OF PEMPHIGUS NEONATORUM WITH INFECTION OF THE MOTHER AND DEATH OF THE INFANT. N. OSTER-MAYER. (*Archiv f. Dermat. u. Syph.*, October, 1903, lxxvii, p. 109.)

THE writer here describes a case of malignant Pemphigus neonatorum, what Richter in his monograph on the subject called *Dermatitis exfoliativa neonatorum*. As cases of this type are becoming rare, the following details in the history of this one will be of interest :

T. R—, aged 26, gave birth to a healthy-looking little girl on December 21st. At the time of the birth neither the mother nor the child presented any abnormal appearance in their skin, but on December 24th the child's skin became affected. The skin of the lower lip was attacked first; then the disease spread over the chin and down to the neck. The skin in those situations had lost its epidermis through the breaking of blisters, and the corium, brownish red in colour, partly moist and partly dry, was exposed. At the angles of the mouth rhagades were present. The mucosa of the lip was inflamed and swollen, but did not bleed. The mucosa of the roof of the mouth was intact. On the left breast and on the flexor aspect of the right wrist, in the right inguinal region, on the dorsa of both feet, and in the scapular region and about the neck, there were areas of skin varying in size from that of the palm of a child's hand to that of a man's, which were brown-red in colour and were surrounded by loose epidermis from the bursting of blisters and the exposure of the corium. No fresh blisters developed, and the rest of the skin seemed to be perfectly healthy.

The mother, who was suckling the child, had a normal skin, but complained of pain in both nipples, which gradually became inflamed, sore, and swollen. Small blisters appeared in a ring round the nipples, and these rapidly became purulent.

In the following days no new vesicles appeared in the child, but it gradually lost ground and died on December 31st.

In the mother the vesicles in the breast and nipples healed and disappeared, but on December 30th three hard bean-sized bullæ appeared between the breasts on the front of the sternum. These contained a clear serous fluid. In a few days they dried up, leaving only brown pigmented lesions.

The special interest of the case is that it began on the lip of the child and spread over different regions of the body, and led in a few days to death through inanition; and that the affected lips of the infant infected the nipples of the mother and inoculated the same disease in her.

(Unfortunately no bacteriological examination is reported.)

J. M. H. M.

TO THE KNOWLEDGE OF LEUCONYCHIA. THEODOR BRAUNS.

(*Archiv f. Dermat. u. Syph.*, October, 1903, lxvii, p. 63. One plate.)

WHITE flecks on the nails or *flores unguium* are common, but more complete or total whitening (leuconychia) is of sufficient rarity to merit the recording of cases of it. There have been a number of explanations suggested for this whitening of the nails. Unna and Joseph believe it to be the result of the presence of air in and between the nail-cells; Giovannini considers it to be due to abnormal cornification; and Heidingsfeld explains it as the result of a parakeratosis without infiltration of air. The majority of writers believe that the parakeratosis and infiltration of air are occasioned by some interference with the nutrition at the nail-matrix which may follow neuritis, gastritis, heart disease, or some general illness, or may result from traumatism.

The case reported in this communication was that of a young woman who had partial leuconychia affecting all her finger-nails with the exception of that of the right thumb. A photograph of the backs of the two hands illustrates the paper. More than two fifths of the nail-plate was affected with leuconychia, and the white patch extended from the posterior nail-fold forward to about $1\frac{1}{2}$ mm. from the free border of the nails. The surface of the nails was smooth and shiny. Beneath the free borders there was some thickening, but no scaling or rhagades. The nails of the feet were unaffected. A histological examination showed a parakeratosis and the presence of air between the cells, which had dried up and shrivelled.

The patient was a healthy, well-nourished girl. The winter before the leuconychia developed she had had her hands frost-bitten, and it was thought that this circumstance might have some connection with the affection, more especially as Riehl has had under his observation three cases of leuconychia associated with frozen fingers.

J. M. H. M.

CONTRIBUTION TO THE KNOWLEDGE OF THE BENIGN TUMOURS OF THE SKIN. MAX WINKLER.

(*Nævi cystepitheliomatosi* and multiple symmetrical *nævi* of the face.) (*Archiv f. Dermat. u. Syph.*, October, 1903, lxvii, p. 3. One plate.)

IN this elaborate communication of nearly forty pages the writer begins by describing at considerable length the clinical appearances and histological changes in five cases of *Nævi cystepitheliomatosi*. A great variety of names has been applied to this affection of the skin, such as "*Lymphangioma tuberosum multiplex*," "*Hidradenoma*," "*Syringoma*," "*Hæmangendothelioma*," and several others, but its true nature is not fully understood. It is generally recognised to be a benign tumour associated with the formation of cysts containing either colloid masses or horny *débris*; but whether it grows from the endothelium of

these blood-vessels, as certain writers maintain, or is developed from the epithelium of the sweat-apparatus, is still open to argument. The histological appearances in the first of the five cases here described, in which the lesions were present in the thorax of a man aged 56 years, showed that the masses of cells and the cysts were definitely connected with the sweat-ducts and independent of the blood-vessels. In this case the lesions were present on both sides of the thorax, and consisted of several slightly raised brownish tumours, which were irregular, round, or oval in shape, and were about the size of a pin's head or larger. They were not grouped in any way, and had no connection with the follicles. In the other cases the lesions were present in the lower eyelids, but in them the connection between the clusters of cells and the sweat-epithelium was not demonstrated, though the histological changes were similar to those in the first case. The writer believes that these lesions are most probably congenital, and are possibly the result of "cell-rests" in the Cohnheim sense of the term.

The writer next describes a case of multiple symmetrical nævus of the face in a man aged 18 years. The ridge and side of the nose and chin were chiefly involved. The eruption consisted of red patches and spots, and dark red nodules about the size of a pin's head. The affected skin was smooth, diffuse, red in colour in some places, and in others covered with fine telangiectasis. It was not papillated or rough, like most of the nævi unius lateris. A histological examination showed a dilatation of the blood-vessels with a cellular infiltration around them. Under the epidermis there was a deposit of pigment in some spindle-shaped and irregular cells. The condition suggested the "Nævi vasculaires verruqueux de la face" of Darier.

J. M. H. M.

TREATMENT OF RINGWORM WITH CHRYSAROBIN. HODARA.
(*Journ. des Mal. Cut. et Syph.*, August, 1903.)

THE author uses a solution of equal parts of glycerine and chloroform, containing 5 to 10 per cent. of chrysarobin. After shaving the hair, this is applied to the patches daily. If the case is disseminated the whole scalp is treated. This is continued till erythema and slight œdema is produced. All traces of chrysarobin are then removed by olive oil, and the treatment suspended till the irritation has subsided. The head is then washed with soap, and the application renewed. The cure takes about four or five months, and treatment is continued for a month afterwards to prevent relapse. The histological changes consist in œdema of the epidermis, and desquamation and parakeratosis of the upper layers. These lamellæ contain the trichophyton, and are thrown off, being replaced by healthy layers containing no parasite. A similar process occurs in the hair-follicles, the *débris* of which, containing the parasite, are surrounded by horny lamellæ and thrown off. This is followed by a new growth of hair.

C. F. MARSHALL.

ACTION OF CHRYSAROBIN IN ALOPECIA AREATA. HODARA.
(*Journ. des Mal. Cut. et Syph.*, September, 1903.)

THE author has investigated the action of chrysarobin in alopecia, and concludes as follows:—A preparation of 30 per cent., applied for two to eight weeks, causes

vascular dilatation, thickening of the vascular walls, proliferation of the perithelial cells, infiltration of the connective tissue round the vessels, and hypertrophy of the connective-tissue cells. Numerous mast-cells were seen round the vessels. In some places there were polynuclear leucocytes, but no agglomeration of lymphocytes. In the upper layers of the epidermis there was œdema, with the formation of parakeratotic desquamative lamellæ, and in the deeper layers there was proliferation of the prickle-cells round the follicular orifices, which gives rise to the formation of cellular sheaths, in the centre of which new hairs form. By repetition of the chrysarobin irritation this cellular proliferation is repeated till new follicular sheaths are produced. New sebaceous glands are also formed laterally. Finally, new arrector muscles form, and new papillæ, in which develop new hairs.

C. F. MARSHALL.

THERAPEUTIC EXPERIMENTS WITH FLUORESCENT SUBSTANCES. H. V. TAPPEINER and JESIONEK. (*Münch. med. Wochenschr.*, November 24th, 1903, p. 2042.)

IN 1900 in this Journal, v. Tappeiner drew attention to the power possessed by fluorescent substances in the presence of light to destroy infusoria. No action took place if the rays producing the fluorescence were cut off. Further experiments showed that these substances were able to destroy enzymes and toxins. It was found that acridin, acridin derivatives, eosin, chinolin red, harmalin, and quinine acted on the cell. *Æsculin* alone was useless. Eosin, fluoresceïn (uranin), and magdala red acted strongly on toxins; the rest weakly or not at all. Eosin, chinolin red, and magdala red acted on papain, diastase, and invertin.

The next step was to apply these results to dermatological practice, and this was done in the clinic of Professor Posselt. Eosin, as a 5 per cent. watery solution, was chosen as the substance to be experimented with, and the sunlight, when not available, was replaced by exposure to an arc light of twenty-five ampères. In the intervals the part was protected by a boracic fomentation or by a zinc plaster. The authors recorded the results obtained in the treatment of carcinomatous, tuberculous, and syphilitic diseases of the skin. In a case of carcinoma of the face in a woman aged 70, although the cure was not complete, the authors were disposed to think that it was only a question of time before the last traces disappear. A case of rodent ulcer on the forehead of a man aged 60, of eighteen years' duration, had improved so rapidly that the authors anticipated a complete cure in about two to three weeks, or after eight to ten weeks of treatment. A third case of inoperable carcinoma of the nose was greatly improved after four weeks' treatment. They reported excellent results in a case of tuberculous disease of the testicle with secondary ulceration of the scrotum. The tubercle bacilli disappeared from the secretion. Five lupus cases were treated. The treatment seemed to shell out the lupoid granulations in an elective fashion. Where the epidermis was thick or resistant no effect was produced. A more detailed exposition was promised in the near future.

WILFRID B. WARDE.

PLATE III.



Fig 1.

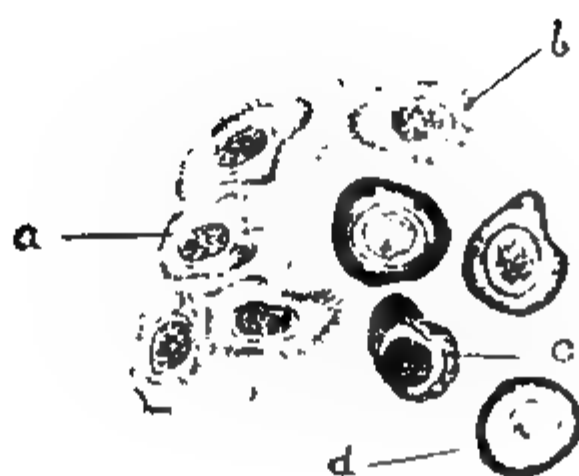


Fig 2.



Fig. 3



PLATE I.

PHOTOGRAPH OF THE CASE.

FOX AND MACLEOD ON PAGET'S DISEASE OF THE UMBILICUS.

THE BRITISH JOURNAL OF DERMATOLOGY.

FEBRUARY, 1904.

ON A CASE OF PAGET'S DISEASE OF THE UMBILICUS.

By T. COLCOTT FOX AND J. M. H. MACLEOD.*

THE patient under consideration was demonstrated to the Dermatological Society of London on November 13th, 1901, with a microscopical section of a portion of the diseased tissue, and at the meeting of the Society on March 12th, 1902, further microscopical specimens were exhibited, confirming the diagnosis of Paget's disease. The case appeared to be of sufficient interest to warrant a more detailed discussion than the few notes already published.

The patient, a seafaring man of 65 years, came under the care of Mr. W. Turner, Surgeon to the Dreadnought Hospital at Greenwich, and Assistant Surgeon to the Westminster Hospital. The man possessed a good constitution, and there was nothing of moment to note in his personal history, and no family history of cancer. In the umbilical region was a rounded eczematoid patch of about two inches diameter, which had gradually been forming for about eleven years; but the applicant had not been much bothered by it, and exact details as to the history of the patch were not forthcoming. The central part of the patch was of a brilliant red colour, exulcerated, and exuding serum, but silvered over in spots by epithelium. This raw centre passed peripherally into a well-marked, raised, smooth, broad border, which terminated abruptly, and over which the cuticle

* In this contribution the clinical description was written by T. Colcott Fox, the histological report and the drawings were made by J. M. H. MacLeod, and the survey of the literature by both writers.

was intact (*see* Pl. I). The whole of the patch felt considerably infiltrated.

Mr. Turner was struck by the objective features of the patch, and by its chronicity and steady eccentric progression. The man was under treatment for a considerable time, and as the patch proved quite intractable to all treatment tried short of destruction or removal, Mr. Turner very kindly brought the patient to the Skin Department of the Westminster Hospital, with the suggestion that the case was one of Paget's disease. Histological examination after a biopsy confirmed the diagnosis, and thereupon Mr. Turner removed the diseased skin, and was kind enough to hand it to us for investigation, and to allow us to record the case.

Histological Changes present in the Case.

As the whole of the diseased patch was excised, an abundance of material was obtained for purposes of histological examination. A quadrant of the excised tissue was cut out, and from this longitudinal sections were made. As a reference to the above clinical description will show, the patch was roughly circular, and had a clearly defined raised border and an excoriated central portion. The sections of the quadrant thus included the border and the healthy tissue outside it and a portion of the central excoriated area. These sections were about an inch in length. The tissue was fixed and hardened in alcohol, embedded and cut in paraffin, and the sections were stained by various dyes, such as borax-methylene blue, polychrome-methylene blue, saffranin and water-blue, to demonstrate the finer structure of the cells of the epidermis, the pseudo-coccidia, and the cellular and fibrous elements of the corium.

1. *Changes in the Epidermis.*—With the low power (Oc. i, obj. 3, Leitz.) the epidermis at the outer extremity of the section showed a slight proliferation in a downward direction by a regular elongation and widening of the interpapillary processes and a rounding of their extremities. This proliferation became very much more pronounced in the middle third of the section, which corresponded to the raised edge. Here the processes had become twice the length of those in the outer third, and were far more irregular in their shape and width. Some were clubbed at the extremities, others broad and rounded, and

a few were conical and tapered. Here and there, owing to the obliquity of the section of the ridge-net system, the familiar appearance of irregular islands of the corium situated in the epidermis was produced. But in spite of the irregularity in shape and size of these interpapillary processes they all ended about the same level in the corium, and did not spread down irregularly into it as in condyloma and epithelioma. In the outer two-thirds of the section the epidermis had an imperfect stratum corneum, which showed a tendency to desquamate and was unusually thin. Here and there it extended down in small plugs or formed concentric horny pearls where a depression existed on the surface. The basal layer was present in this situation, and although it was not perfectly regular, still it remained unbroken. The epidermis did not stain regularly, and the lower ends of the processes especially stained faintly, as if they were oedematous. Irregular spaces were present in the Malpighian layer, but the interepithelial lymphatics were not uniformly distended with oedematous fluid as they are in psoriasis and eczema. Another peculiar feature of the epidermis noticeable by the low power was the presence in it of a number of darkly stained, more or less rounded bodies, some of which were several times larger than a prickle-cell. These were irregularly distributed in the epidermis, some being situated superficially near the horny layer, others deep down towards the basal layer, but the majority being about the middle of the epidermis. These were arranged singly or in clusters, and occasionally they were grouped together in a concentric manner, forming variously shaped figures. They were situated among the prickle-cells, and only a few of them could be detected at the edges or lying free in the irregular spaces already referred to. These rounded structures are the "coccidia" of Darier and Wickham.

Towards the middle of the section the ordinary epidermis stopped abruptly, and was replaced by a single layer of columnar epithelium, which extended over the surface and dipped down at intervals to form a lining for a number of glands similar in appearance to Lieberkuhn's follicles of the small intestine. These follicles extended down into the underlying fibrous stroma, and some of them reached to a lower level than the longest interpapillary process. This showed that in this case a portion of Meckel's diverticulum had been included in the umbilicus, an occurrence which occasionally takes place. A reference

to Plate II will serve to show the general appearance of the section as seen by a low power. Only a portion (about three fifths) of the section is there depicted, the outer fifth and inner fifth being left out in the drawing.

With the *high power* (Oc. iv, obj. $\frac{1}{12}$, oil imm., Leitz.) the explanation of the peculiar changes in the epidermal cells already referred to was apparent. Even at the outer margin of the section, but far more marked towards the centre, the prickle-cells at the lower parts of the interpapillary processes were found to be swollen, their protoplasm faintly stained, and their nuclei frequently situated in spaces within the cells. The cells were evidently oedematous, and though towards the surface they stained more naturally, yet the oedema was still present sufficiently to interfere with the process of cornification, and there were scarcely any cells in the position of the granular layer in which even a trace of keratohyalin could be detected. The stratum lucidum was also absent, and the horny layer was unusually thin and tended to desquamate. The cornification thus took place without the formation of keratohyalin, as it does in the red portion of the lips. In spite of the oedema of the cells, however, a number of nuclei in the process of karyokinesis were observed, and the cells of the basal layer and those immediately above it showed numerous mitotic figures.

The interepithelial oedema was not pronounced in the middle and upper portion of the epidermis, though here and there it was sufficient in degree to allow of leucocytes making their way between the cells towards the basal layer. Wide, irregular spaces were present, in which were deformed prickle-cells, leucocytes, and *débris*. A number of prickle-cells were found to have lost their fibrillary skeleton, the spongioplasm and its continuations into interepithelial fibrils had disappeared, and the protoplasm had become homogeneous. In this way the cell had assumed a globular appearance. Many of these cells lying immediately beneath the stratum corneum had become surrounded by a hardened, probably keratinised covering.

Several types of these degenerated cells were formed in this way, and these were variously grouped, *e.g.*—

(a) Round swollen cells with a finely granular, almost homogeneous protoplasm, and a darkly stained nucleus lying in a space or surrounded by a halo of fluid protoplasm, which stained faintly.

These nuclei had chromatin bodies and a good intra-nuclear network.

(b) Round or oval cells with a faintly stained nucleus, but a more defined and darkly coloured ectoplasm, which stained similarly to that of the cells of the stratum corneum. These cells had a slight resemblance to coccidia.

(c) Cells in which, in spite of the œdema, an active nuclear division had taken place, but in which the division of the protoplasm of the cell had not kept pace with that of the nuclei, and so multinucleated cells containing several oval, faintly stained nuclei had been produced.

(d) Groups of cells in which the nuclei became flattened and crescentic in form, and a great variety of shapes resulted. It is unnecessary to describe in detail these different groups and figures. Occasionally a leucocyte became impacted in such a group and further complicated it.

The single cells or "pseudo-coccidia" could be demonstrated by any of the ordinary stains, such as methylene blue, hæmatoxylin, and picric acid (Banti), but the most satisfactory specimens of them were obtained by staining the protoplasm of the cell with water-blue and the nuclei with saffranin.

The columnar epithelial cells lining the surface of the central portion and the follicles which dipped down from it were seen by the high power to be very regular in shape and to have oval nuclei situated near the base of the cell. These cells appeared to be perfectly healthy, and showed no evidences of œdema or other degenerative process.

2. *Changes in the Corium.*—The most noticeable feature in the corium when examined by the low power was a dense sheet of cellular infiltration which occupied the papillary and sub-papillary layers and the upper portion of the reticular layer. This infiltration was densest in the middle third of the section, especially where the raised border existed, and in this situation it was peculiarly diffuse and ended abruptly below in an almost straight line. It was not quite so dense in the papillæ, and about the blood-capillaries the cells tended to be collected in foci. At the outer end of the section it was less diffuse, and was arranged in foci around the papillary and sub-papillary blood-vessels; while in the centre beneath the columnar

epithelium it was also less dense and more irregular, and spread further down into the underlying stroma.

With the high power the infiltration was found to consist largely of plasma-cells, with a few leucocytes and connective-tissue nuclei. These plasma-cells were perfect in shape, and showed no tendency to special grouping or to form giant-cells. This cellular infiltration was thus more than a simple inflammatory infiltrate such as is met with in eczema, psoriasis, or any acute inflammatory condition of the skin. It was more closely allied to that which occurs in certain of the "infective granulomata," such as syphilis and yaws, and suggested a chronic inflammatory process. Unna described it as a singularly pure "plasmoma," and Karg has likened it to a bulwark against the cancerous invasion.

The papillæ were œdematous and swollen, especially in the middle of the section. The fibrous elements of the corium were only affected in the area of infiltration. There the collagen stained faintly, especially in the œdematous papillæ, but showed no basophilic degeneration. The elastin was also affected in that it stained badly, was swollen, and formed an imperfect supporting skeleton.

The blood-vessels of the papillary and sub-papillary layers were much dilated, and there were a few dilated capillaries in the corium beneath the infiltration.

Brief Résumé of the Literature on Paget's Disease.

Since the time of Wickham's thesis in 1890 many interesting observations have been made on Paget's disease, and most of the subsequent literature will be found mentioned in Rolf Lindt's Thèse de Berne, 1895 (*Ueber Paget's Krankheit*), and in P. Fisse's Thèse de Toulouse, 1897 (*Contribution à l'Étude de l'Epithéliomatose de Paget*). Only a slight sketch of the evolution of our knowledge of the malady will be necessary here in order to bring out some points for consideration. The breast cases will be first studied, and afterwards the examples occurring in other regions of the body.

For so comparatively rare an affection, Paget's disease possesses an unusually large literature and has been the subject of much controversy. In the initial communication by Sir James Paget on "*Disease of the Mammary Areola preceeding Cancer of the Mammary Gland*,"

published in 1874, in the *St. Bartholomew's Hospital Reports*, the writer makes the following observations:—"The formation of cancer has not in any case taken place first in the diseased part of the skin. It has always been in the substance of the mammary gland beneath and not far from the diseased skin, and always with a clear interval of apparently healthy tissue."

Since Paget made the above statement, however, several cases have been reported in which the cancer took its origin in the epidermis, and in which there was no evidence of malignant change in the underlying glandular tissue.

It suggested to Paget that the superficial disease of the skin induced in many months a condition of the underlying gland-cells which made them apt to become the seats of cancer. He referred also to persistent rawness of the glans penis being followed by cancer of the substance of the gland, and to chronic soreness of the lip preceding cancer in that situation. Paget thus seems to have believed that the changes in the skin were neither malignant from the first, nor did they become so subsequently, but that they exerted some peculiar influence on the underlying cells of the mammary gland which induced a malignant proliferation of them and a formation of cancer.

Butlin* first described the histology of this affection under the heading of "*The finer anatomy of two breasts, the areolæ of which had been the seats of long-standing eczema.*" He concluded that the "eczema" of the nipple and areola was primary, and accompanied by a thickening and proliferation of the stratum Malpighii and an infiltration of the corium and subcutaneous tissue with small round-cells (leucocytes). He found the milk-ducts open and distended, and containing masses of glandular epithelium. At length the epithelial cells burst through the walls of the ducts, and carcinoma resulted. The underlying acini of the gland were also dilated and filled with epithelium. He regarded the change in the deeper parts as continuous with those produced in or beneath the surface of the "eczema." Butlin noted the inflammatory infiltration of the cutis and two modes of multiplication of epithelial cells in the ducts and acini, the one by division of the nuclei and the cells, the other by endogenous formation. He found in one case that the surface

* *Med.-Chir. Trans.*, 1876, ix, p. 107.

epidermis dipped into the cutis and contained a few cell-nests suggesting epithelioma.

Thin* made the next important contribution to the subject, and pointed out that the diseased process in the breast was primarily an insidious cancer change in the epithelium of the galactophorous ducts, with a subsequent bursting of the ducts by the proliferating epithelium. Hence he called the carcinoma found "duct cancer," to distinguish it from true scirrhus, arising from the secreting epithelium of the acini. He also demonstrated a proliferation of the epidermis and a change in the individual cells by which they became oedematous, vacuolated, and tended to break down; but he did not consider that the malignant growth developed from the epidermis. Thin supposed the dermatitis to be set up by a corrosive fluid escaping from the diseased ducts, and he suggested the name *malignant papillary dermatitis* to prevent the perpetuation of the error of calling the diseased process in the skin *eczema*. He distinguished this dermatitis from *eczema*, (1) by the presence of the well-defined margin, which might be raised or even overlap the healthy skin; (2) by the destruction of the connective tissue without tendency to repair, which he attributed to the presence of cancer; (3) by the presence of chronic moist redness, a condition only produced by *eczema* when acute; (4) by the presence of a sensible infiltration in the papillary layer. Erichsen suggested the name *Paget's disease of the nipple and areola*, and Besnier later on the designation *eczematoid epitheliomatosis*.

Duhring† was the next contributor, and emphasised the insidious and emphatically chronic character of the skin disease. He pointed out that itching became marked only when the process was well established, whilst it occurred in *eczema* from the outset; that the slightly elevated border with sharply defined outline was peculiar; that the brilliant colour was more marked than in *eczema*; that infiltration, though not deep-seated, was firmer than in *eczema*; and that there were no punctiform lesions over the surface, and an absence of repeated vesicle or pustule-formation. He and Wile‡ regarded the disease as an abnormal cell-proliferation which begins in the epider-

* *Brit. Med. Journ.*, 1881, i, pp. 433, 760, 798.

† *Amer. Journ. Med. Sci.*, July, 1883.

‡ *Ibid.*, July, 1884.

mis, and this tendency or impulse to growth is communicated to the lining membrane of the lactiferous ducts, which are only indentations, so to speak, of the epidermis. They noted that the proliferation and œdematous degeneration of the epidermis occurred synchronously, and that while the peripheral cells actively multiplied, the central cells, especially those of the interpapillary processes, degenerated. The cells of the milk-ducts became similarly affected. The stuffing of the smaller ducts, which have hardly any elastic layer, causes their rupture and the passage of epithelium into the connective tissues around, and the formation of scirrhus cancer. This clear exposition of the origin of the cancer confirmed Butlin's demonstration; but in another place Duhring refers to the unruptured larger lactiferous ducts which have already undergone carcinomatous change. These observers seemed to have arrived at a more accurate conclusion with regard to the interpretation of the histological changes than previous writers, in believing that similar changes might occur in the epidermis and in the epithelium of the ducts and glands, and that these might be the precursors of cancer.

The remarkable changes already noticed as accompanying the proliferation of the epithelium were carefully studied by Darier,* who concluded that coccidia were present and the cause of all the trouble. He believed the affection to be a psorospermiosis of the superficial epidermis invading the glands and causing cancer. Under the influence of this doctrine Wickham† wrote his excellent thesis, and contributed both careful histological details and valuable clinical data from a study of well-observed French cases. He pointed out that the clinical differentiation could be made by the following points:—The age of the patients is mostly between forty and sixty years of age. It is a chronic affection, and usually unilateral, or at any rate was fully developed on one side before commencing on the other breast. A history is usually to be attained of origin by corneous concretions, adherent and rebellious, on the summit of the nipple, with or without itching, accompanied sometimes by signs of subjacent inflammation (congestion, exulceration). The nipple becomes pre-

* *Soc. de Biologie*, April, 1889; *Atlas of Skin Disease*, Pringle, 1895, p. 223.

† *Intern. Congr. of Derm.*, Paris, 1889; *Thesis* ("A Contribution to the Study of the Cutaneous Psorosperms and Certain Forms of Cancer"), Paris, 1890; *Ann. de Derm. et de Syph.*, Jan., 1890.

cociously retracted. There is a definite and slow progression of the skin lesion, with serpiginous course, and, although perhaps momentary arrests, never spontaneous regression. The diseased area acquires polycyclical contours, slightly raised in a rim and abruptly circumscribed.* The surface is a lively red, brilliant, more or less oozing, lightly granulated, and covered in places by scales and crusts, under which one distinguishes excoriated and exulcerated areas, or points covered with sodden epidermis (epidermised). There is a superficial papyraceous induration. There may be a sensation of burning, or of itching, which is of little intensity and not constant. The surface is painful on contact and free from the formation of vesicles. Enlargement of related lymph-glands only occurs late. The affection is intractable, and sooner or later a cancer forms, deeply placed but, according to Wickham, in connection with the surface changes.

Eczema, or simple dermatitis, on the other hand, which is apt to occur in connection with pregnancy, lactation, scabies, and with irritating discharges, tends to be bilateral. The nipple may be inflamed and swollen, but is not retracted. The surface of the excoriated area is not so deeply red, the patch is not so abruptly limited, and has not the steady eccentric progression of Paget's malady. Eczema is apt to have remissions and exacerbations, and vesicles tend to form, at any rate about the periphery. Wickham said that although the clinical characters alone, by their number and value, can lead to a positive diagnosis in the majority of cases, they do not always suffice, for forms closely simulating eczema are met with. Clinical microscopy, however, in default of complete histological examination, could definitely settle the diagnosis by the demonstration of the psorosperm. Histologically eczema never presents the aspect disclosed of an epidermis riddled with vacuoles, and this state of cellular disorganisation with consecutive proliferation.

Darier (*La Pratique Dermatologique*) also states that he has met a dozen cases of flat superficial epithelioma elsewhere than on the breast, with slow progression, defined polycyclical borders marked by a slight *bourrelet*, slight induration of the surface, the presence sometimes of ulceration, either scooped out or vegetating in certain points, and with integrity of the lymphatic glands. Such a condition really differs little

* This is well displayed in the illustration of the case recorded by Wiggin and Fordyce (*New York Med. Journ.*, October 2nd, 1897).

from Paget's disease, except in being more ulcerous in parts and more freshly cicatricial in others, and a histological examination is desirable to settle firmly the diagnosis.

Wickham noted that towards the border of the patch, where the disease is least advanced, the glandular conduits and the acini of the pilo-sebaceous and sudoriparous glands were more or less dilated and participated in the inflammatory changes, and the contained proliferated epithelium displayed the psorosperm. Here the base of the epidermis was perfectly delimited. In the second and more advanced stage the epidermis became disorganised and destroyed with the production of exulceration. (The interpapillary processes were much enlarged, and in two cases offered in some points grouping of cells which suggested epitheliomatous transformation and tended to burst through their limits.) He concluded that the cancer of the final stage, which may assume various types, is not essentially derived from the lactiferous ducts, but may be of epidermic origin, or commence in the skin-glands and their ducts.

Bowlby,* after a study of thirteen cases, confirmed the accuracy of the generally accepted description of the affected tissues, but approached the psorosperm theory with some reserve. In the earliest stages examined he found a thickened desquamating surface epithelium, with large interpapillary processes penetrating more deeply than usual into the skin; secondly, an infiltration of the upper layer of the cutis, with leucocytes and often large and numerous blood-vessels; later, proliferation of the epithelium of the lactiferous ducts and the acini occurred, with surrounding cellular infiltration and the formation of fibrous tissue, which retracted the nipple. He failed to detect changes in the sebaceous and sweat-glands. The cancer examined seemed to have originated in the epithelium of the acini, and was a spheroidal-celled alveolar carcinoma (scirrhus). When related lymphatic glands were involved a similar type of cancer was found, but, like Wickham, he could not detect the special psorosperm-like changes in the cancerous growths, and he gives reasons for rejecting the theory that the cancer is due to these bodies. Bowlby thought the raw and irritated surface bears the same relation to the development of the subsequent cancer as does an old ulcer of the leg

* *Trans. Med.-Chir. Soc.*, 1891.

or of the tongue to an epithelioma. He criticises Wickham's statement that the latter found true epitheliomatous changes in the skin.

McCall Anderson believes that the skin changes are of a malignant nature from the outset, but he qualifies this statement by adding that they bear a somewhat similar relation to cancer of the breast that the so-called tylosis (psoriasis) of the tongue does to epithelioma of the tongue.

As to the *type of cancer* found, Jonathan Hutchinson, jun., remarks on the resemblance histologically to duct cancer, and Barling found a similarity in places to alveolar cancer and in others to duct cancer. Darier remarks that the cancer arises usually from the lactiferous ducts, but sometimes from the interpapillary epithelial downgrowths. The cancer, he says, is sometimes distinctly lobulated, with epidermic globes; sometimes formed of bands, rather cylindrical, containing dyskeratotic cells; sometimes it belongs to the type of infiltrated alveolar carcinoma.

Meanwhile the attractive coccidia theory was keenly debated. The presence of these organisms was accepted by some observers, but contested by others, and the theory has for the most part been abandoned. Darier himself now admits that the pseudo-coccidial bodies are "epithelial cells, having lost their filaments of union and undergone individually a special degeneration, mucous, hyaline, or parakeratotic." He proposed to name them dyskeratotic cells, and adds that analogous forms are found in "follicular psorospermiosis" and in the most part of epitheliomata.

Karg* failed to find anything abnormal in the mammary gland or its ducts; but where the disease in the skin was very advanced he noted signs of a very active proliferation of the epithelium, and in places a breaking through its normal limits. Moreover he detected epithelial processes cut off from their attachments and with the histological character of cancer. He holds that certain isolated cells in the rete, viz. those described as protozoa by Darier and Wickham, are early cancer cells, and the first symptom of cancerous proliferation of the epithelium, which may remain in the affection under consideration long localised. He identifies, however, other bodies as parasites.

Unna,† in 1896, minutely described the histology of the disease, and

* *Deutsche Zeitschr. f. Chir.*, xxxiv, 1892.

† *Histo-pathology of the Skin*, Walker's trans., 1896, p. 737.

pointed out that the peculiar coccidia-like appearances were due to special changes in the cells of the Malpighian layer. He also demonstrated that the cellular infiltration of the dermis was a defensive plasmoma such as is seen in rodent ulcer. He did not agree with Karg that the process was a superficial cancer from the outset, but thought it a unique condition as different from cancer as from eczema. It, however, prepared the ground for the secondary cancer, which may have different points of development, *e. g.* surface epithelium, lactiferous ducts, breast, and hence may assume different phases.

In the study of a case by Fisse* he observed an elongation of the papillæ and the appearance and multiplication of the "pseudo-cysts" of Darier. He noted a plasmoma in the dermis with its maximum of development a little below the papillary layer. In the central ulcerated portion collections of epithelial cells were also present in the cutis, due to an invasion of epitheliomatous tissue. Deeper down the epithelial foci became more completely shut off by stroma and alveolated, until a typical carcinomatous infiltration was formed, which Fisse says evidently grew from above down and was progressively formed from the Malpighian layer. He, however, draws a distinction between the cells of the deep-seated carcinoma and the more superficial epithelial processes with their great vacuolated cells and encysted bodies. His conclusion is that the epitheliomatosis of Paget originates by an acantholytic process,† which commences both in the deep and middle layers of the epidermis, and announces itself by the disappearance of the filaments of union of the cells, by the enormous swelling of certain cells, whose protoplasm rarifies, contracts, and disappears. In the interior of these cells others form, probably endogenously. These changes gradually involve all the epidermis, which is partially destroyed without undergoing corneous evolution. In a certain number of cases this altered epithelium acquires the properties of a malignant tissue, *i. e.* it breaks its normal barriers on the side of the dermis and invades the latter under the form of a carcinomatous infiltration, of which the alveoli are filled with cells of cutaneous origin.

An instructive case under Marmaduke Sheild, described in detail

* "*Contribution a l'Etude de l'Epithéliomatose de Paget*," *Thèse de Toulouse*, 1897.

† In this he adopts Audry's view.

by Rolleston and Hunt,* is of great interest in connection with the origin of the cancer.

A married woman, aged 45, came under observation in August, 1896, with an oval patch of disease, 10 by 9 inches, occupying all the mammary region. The surface was vivid crimson, glazed, covered with a few adherent scales, exuding an abundant sticky, alkaline discharge. The border was sharply defined, and the parts had a parchment-like thickening. The nipple was gone, and a fungating carcinomatous nodule, probably of one year's duration, presented towards its inner side. She gave a history of its origin eight years previously from the sinus of a breast abscess, which had never healed.

In February, 1897, the disease had greatly increased, and the patient, who had declined treatment previously, submitted to a radical operation. No traces of carcinoma were found in the mamma.

In the skin the stratum granulosum had disappeared, and the stratum corneum was detached or in process of being cast off. The interpapillary processes were elongated, but not comparable to a papilloma, and the outer cells were undergoing the special changes described by Darier and Wickham. A plasmoma occupied the superficial layers of the dermis. The sweat-glands were only slightly and rarely dilated. In parts the exaggerated processes of the epidermis could be traced into the formation of a squamous-celled carcinoma, with vacuoles and cell-inclusions, but without cell-nests or keratinisation, owing, the writers say, to œdema. In the deeper layers the cells of the growth showed a transition to a spheroidal type, and implicated the sweat-glands. The cells of a secondary growth in a lymphatic gland reproduced the marked degenerative changes seen in the skin. Recently G. T. Jackson† reported a case in which the cancer distinctly grew from the lactiferous ducts, and there was no evidence of active growth from the Malpighian layer of the epidermis. He believed that Paget's disease was a true duct-cancer, and considered that the name, "*eczematous condition of the nipple and areola ending in cancer*," was bad.

Paget's Disease of Other Regions than the Breast.

In the London *Pathological Society's Transactions*, 1889, Radcliffe-

* *Trans. Path. Soc. Lond.*, 1897.

† *Journ. of Cut. Dis.*, May, 1903, p. 201.

Crocker described the case of a healthy looking well-nourished man, aged 60, in whom the disease began at the root of the penis and adjacent scrotum in the summer of 1886. The disease steadily spread over nearly the whole of the left half of the scrotum, reaching the pubes, and extending a little to the right scrotum near its junction with the penis and over the under-surface of the latter. It was intractable to simple remedies. The diseased surface was superficially ulcerated, easily bleeding, discharging serum, with here and there pearly white islets, in which the epithelium had escaped destruction. It looked a deeper process than eczema. The border was well defined. In November, 1887, two small nodules appeared in the excoriated area. The glands were not enlarged.

In describing the histology the author mentions that there was no notable downgrowth of the Malpighian layer, but internal proliferation of the lining membrane of some sweat-coils was observed. The alveolar cancer came from the sweat-coils and ducts, but whether primarily or secondarily was unproved. Other masses originated probably in the hair-follicles or sebaceous glands.

Wickham, who examined the material, found a sharp delimitation of the diseased process at the border. The epidermis was doubled in thickness, and the interpapillary processes much prolonged, with alteration in structure of the cells, and accompanied by inflammatory reaction in the dermis. As in his own case, globes were seen developing in the epidermis. Proliferation was observed in one sebaceous gland and at the orifice, and in other hair-follicles the pseudo-coccidia were found. The sweat-glands were normal. From the position of certain large cavities he inferred they were the result of the disappearance of sebaceous glands which had undergone cancerous changes, and though he did not detect any ruptures of glands or ducts, he concluded this had occurred from the presence of certain epithelial cells in the tissue. The psorosperm-like bodies were found in the cancer.

At a meeting of the French Dermatological Society in January, 1893, Darier and Couillaud* presented a vine-dresser, aged 72, suffering from senile cachexia, who was the subject of Paget's disease, which had commenced at the anus with some uncomfortable sensations fifteen years previously. In 1887 the man had been admitted to a

* *Ann. de Derm. et de Syph.*, t. iv, 1893, p. 33.

hospital suffering from cardiac affection, chronic bronchitis, and anal "eczema." The tenacious and singular aspect of the anal lesion attracted special remark, and a biopsy was made and a diagnosis made by one of the exhibitors. The patient was sent to the St. Louis Hospital in Paris, in July, 1892, and Fournier diagnosed Paget's disease from the clinical appearances. The lesion then covered the perineo-anal region, penetrating one centimetre into the anus, and extended continuously up the buttocks as high as the coccyx, and on to the scrotum and the postero-internal surface of the thighs. The contours of this diseased surface were distinct, festooned, polycyclical, and bordered by a slight epidermic fringe. The detailed characters differed in various parts, but there was a contrast between the centre and periphery. The central zone was a deep vinous red, dotted with more or less whitish irregular islands consisting of macerated or drier opaline epidermis, and indurated. In places there were granulations. The peripheral zone was dry, varied in width, scaly in places, raised or very little indurated. The malady had proved intractable. As the result of a further biopsy the sections displayed numbers of coccidia-like bodies, especially in the central parts, and evident in the first range of cylindrical cells as well as all through the epidermis. They occurred in the epidermic processes, the sweat-canals, and pilosebaceous follicles. In the corneous layer these formations lost their nuclei, and then simulated Molluscum contagiosum corpuscles and "grains" of follicular psorospermiosis closely.

In the *Pathological Society's Transactions* for 1897 Rolleston and Hunt record a second case which had been observed and diagnosed by Mr. Marmaduke Sheild. A man, aged 60, in feeble health, had noticed a slowly extending patch of "eczema" over the pubes for eight years. The irregular ovoid area of disease extended from the pubes over the root of the penis and down the scrotum on either side, and measured five inches transversely by three vertically. It presented a vivid red, raw, somewhat glazed area, granulating in parts, having a distinct and slightly brownish margin, the skin being obviously thickened and infiltrated, and discharging an alkaline sticky fluid. Three firm tumours, of malignant aspect and simulating those of Mycosis fungoides, had formed on the surface two years before the patient came under observation, following a blow. The inguinal glands were unaffected. Psorosperm-like cells were not definitely recognised in

a surface scraping. Sections from the margin showed an increase of length of the interpapillary processes, with commencing swelling and œdematous vacuolation of some of the superficial cells. Further towards the centre of the patch the Malpighian layer showed extensive proliferation, with detachment of the stratum corneum and crowding of the pars papillaris with inflammatory cells. Proliferative and irritative changes were noted in the hair-follicles and sebaceous glands, and in the latter the special cell-changes were observed. The sudoriparous glands were below the level of the growth and dilated in places, probably mechanically, but characteristic changes were seen in the ducts. Near the growths the deeper part of the dermis was invaded by carcinomatous alveoli, with marked central degeneration in places, but no keratinisation or corneous change. The authors believed that the spheroidal-celled carcinoma developed from the sebaceous glands, because elsewhere the sebaceous glands showed proliferative changes, and they were entirely absent from the region of the growth, the latter commencing at the level where these glands were situated.

At the Cheltenham Meeting of the British Medical Association in 1901 Dubreuilh* described the case of a woman aged 51, seen on August 1st, 1900. She noted three years previously a slightly painful and itchy red pimple near the level of the clitoris, and the lesions had steadily increased in spite of treatment. On September 3rd, 1900, there was an indurated and eroded patch, occupying the anterior third of the left labium majus, the anterior fourth of the right labium majus, the clitoris, the vestibule, and the urethral orifice. The anterior part of the left labium majus on its inner aspect presented a deep red, eroded, and weeping surface, studded, especially towards the margin, by islands of macerated epidermis, and with a fairly well-defined but jagged margin. The base presented a firm elastic induration. Elsewhere the diseased surface only differed in slight details of aspect. The parts were not itchy, but the seat of momentary shooting pains. An indurated enlarged gland existed in the inner part of the left groin.

Microscopical examination showed an abrupt commencement of the changes on the border of the erosion by a disorganisation of the epithelial cells, with interference with the general shape of the interpapillary processes. Further in, except here and there, almost all

* *Brit. Journ. of Derm.*, 1901, xiii, p. 407.

trace had vanished of the epidermis except the interpapillary processes, which were well defined, but a little irregular in shape and size, and the component cells exhibited loss of shape, dissociation, and irregular multiplication. Similar cell-changes were continued along the hair-follicles, and to a less degree along the superficial part of the excretory sweat-ducts. The papillary layer was abundantly infiltrated with numerous plasma-cells, with lymphocytes, and some leucocytes. The sections of mucous membrane displayed similar characters, but the smaller papillæ were less defined, and on large surfaces the epithelium was gone. In some parts of the nymphæ deep epithelial masses were found, which appeared to be due to the degeneration of glands.

Dubreuilh believed the process in the breast to be a superficial epithelioma from the outset; an epithelioma in patches not going beyond the epidermis, not penetrating the derma, yet capable of spreading along the milk-ducts and of causing in the gland one of the most malignant forms of cancer. (The epitheliomatous invasion of the hair-follicles and sebaceous glands has also been described.) He considered that his specimen showed an analogous invasion of the mucous glands.

At the New York Dermatological Society, October 27th, 1903, Fordyce* presented a case of Paget's disease of the genital region in a woman aged 60 years. There are several other cases recorded in the literature, but the complete proof of their nature is lacking. Thus Tarnowsky,† *à propos* of a discussion on psorospermiosis, stated that he had under treatment a syphilitic patient attacked by a psorospermic affection of the glans penis in every way comparable to Paget's malady. The patient had a painful indurated ulcerative lesion, but no cancer had developed. Pick is also quoted as observing a similar affection. Winfield‡ recorded an intractable eczematoid affection of the lower lip, and Ravogli§ observed an ulcerated condition of the nose of an aged lady. Sections of the latter case did not give positive results, but in scrapings of the surface peculiar cells were stained, which showed amœboid movements when prepared in glycerine.

The above references to the literature on the subject will serve to show that, in spite of the time which has elapsed since Paget described

* *Journ. of Cut. Dis.*, December, 1903.

† *Ann. de Derm. et de Syph.*, 1891, p. 411.

‡ *Monatsh. f. prakt. Derm.*, 1896, xxii, p. 314.

§ *Int. Med. Congr.*, Rome, 1894.

the affection, there is still much diversity of opinion both with regard to the seat of origin of the cancer and whether the peculiar epidermal changes are malignant from the first or simply pave the way for cancer to be subsequently engrafted on them.

Remarks on the Histology of our Case and Conclusions.

There are several points of interest in connection with the microscopical changes present in our case which, although they can hardly be said to settle this controversy, still are worthy of consideration.

1. Although the affected epidermis was that of the umbilicus and not the areola of the nipple, still, the changes present in it, the peculiar degenerated prickle-cells, the occurrence of the dense sheet of plasma-cells infiltrating the underlying papillary layer of the corium—in short, the whole histological architecture was similar in every detail to that which has been repeatedly described in the typical cases of the disease. These initial peculiar cellular changes in the epidermis, allied somewhat to those which occur in Psorospermiosis follicularis vegetans (Darier's disease), could no longer be mistaken for those of chronic eczema or psoriasis, and it is unnecessary to repeat any laboured details with regard to the histological diagnosis from these affections. It would seem that the histological changes in the epidermis in Paget's disease are characteristic and pathognomonic, whether the affection occur in the nipple, the umbilicus, or the genitalia.

2. In this case there was no evidence of definite malignant change in the epidermis. The degree of proliferation was limited, and the basal layer was intact. It has been asserted that the peculiar change of the epidermis is malignant from the first. This does not seem to us to be so any more than that ordinary warts, the warty growths in Xeroderma pigmentosum, or pigmented nævi (moles) are malignant from the outset. They may all be described as pre-cancerous lesions of the skin which have a potentiality more or less certain of becoming malignant.

Recently there has been a reaction from the parasitic theory of the causation of cancer, and it is becoming the fashion to resuscitate the time-honoured "cell-rest" theory of Cohnheim, which in the process of evolution has been made to include, by Durante, Senn, and others, not only congenital "cell-rests," but also matrices which have developed after birth. In the Bradshaw Lecture of last year on

"*Cancer and its Origin*," Henry Morris* strongly advocated this "tumour germ" theory. Referring to Paget's disease, he said: "It is certain that something more than the long-standing irritation of chronic eczema is needful for the development of mammary cancer, and this something is a tumour-matrix in the breast." Apart from the fact that in Paget's disease of the nipple we are not dealing at first with a chronic eczema, an explanation of the malignant development as the result of a tumour-matrix, whether congenital or developed after birth from the epithelium lining the ducts or acini or from the epidermis itself, remaining dormant for a time and becoming active subsequently, seems to us to be inadequate and to beg the question. As an argument in favour of this hypothesis Morris referred to eight cases of eczema of the nipple, in six of which there was no cancer of the mamma, and remarked that "if the cancer were due to irritation alone, why did not carcinoma develop in all the eight cases equally?" There is a possible fallacy here, and we may be pardoned in referring to it. If the diseased state of the nipple was definitely proved microscopically to be Paget's disease in all eight cases and malignancy only supervened in two, and a sufficient time had elapsed in the others, it is a most unusual record. On the other hand, if they were all cases of true chronic eczema it is equally unusual for them to become malignant.

It has never been demonstrated, and it seems highly improbable that the degenerated cells which occur in the epidermis or the epithelium in Paget's disease can take on malignant characters. It appears to us, however, more reasonable to assume that the malignant growth originates in epithelial or epidermal cells which, not having degenerated, have reverted and assumed a capacity for proliferation through the prolonged action of some cause which, acting most powerfully on undifferentiated cells, produces their degeneration, than in a matrix of cells which has been deposited there at some period more or less remote.

3. The inclusion of a portion of Meckel's diverticulum in the centre of the umbilicus, in this the only case of Paget's disease which has been recorded in that situation, may be a coincidence, but it is a suggestive one. Cases have been recorded in which the cancer grew from the epithelial cells of mucous glands, and had malignancy supervened it is possible that it might have taken its origin in the cells lining the follicles in the cut-off portion of gut in the umbilicus. Still,

* *Brit. Med. Journ.*, December 12th, 1903, p. 1505.

in the sections the columnar epithelium on the surface and lining these follicles seemed perfectly healthy, although the neighbouring epidermis was markedly affected.

4. The general histological appearances suggested a chronic inflammatory disturbance, involving the papillæ and leading to proliferation, œdema, and degeneration of the epidermal cells, and to the formation of a resistant cellular infiltration in the upper layer of the corium. It was a process that in some ways suggested Lupus erythematosus in so far as the œdema and the underlying infiltration were concerned, but differed from it in that in the one it tends to malignant proliferation, while in the other it leads to atrophy and scarring. It did not seem to us that the epidermal changes were primary, though this is a debatable point, in view of the chronic character of the cellular infiltration in the corium. In Condyloma acuminatum, for example, which is due to irritating discharges acting on the skin, and in which the epidermis is primarily involved, the changes in the corium are of a simple inflammatory nature and very slight in comparison. In this case, even beneath the apparently healthy epithelium of the central portion of the section a dense cellular infiltration was present, as if the papillary and sub-papillary layers were first attacked and the overlying epithelium and follicles had not yet been involved; in other words, as if the poison had acted first on the blood-vessels of the skin, not necessarily having been carried there through the general circulation, but more probably produced locally, either by some micro-organism or by the epidermal cells in response to some peculiar form of local irritant.

5. As to the most important problem of all, the actual cause of this singular pre-cancerous dermatitis and the subsequent carcinoma, our researches did not seem to throw any light, and we felt as much in the dark as when Paget described it in 1874. The theory of Darier and Wickham that the degenerated cells in the epidermis were coccidia and caused the disease, has gone out like a pricked bubble, but it has left a blank, for it is a disease which is readily explicable on the assumption that it is parasitic in origin. Like the causation of cancer it remains an unsolved problem. Perhaps in the ultra-microscopical field an organism may yet be found. Problems such as these—of the undiscovered ultimate causes of disease—are the incentives to research which lend an almost romantic interest to medical science.

DESCRIPTION OF PLATES.

PLATE I.

Photograph of the case.

PLATE II.

Drawing of the central three-fifths of one of the longitudinal sections referred to in the text. Shows the raised border and the central mucous portion. (Ocular 1, obj. iii, Leitz.)

- a.* Imperfect stratum corneum.
- b.* Proliferating epidermis.
- c.* Small cornified cell-nest.
- d.* Œdematous degeneration of prickles-cells.
- e.* Columnar epithelium lining the surface; the remains of Meckel's diverticulum.
- f.* Tubular gland lined with columnar epithelium.
- g.* Dense infiltration, consisting chiefly of plasma-cells.
- h.* Dilated blood-vessel.

PLATE III.

FIG. 1.—Drawing from another longitudinal section, showing the proliferated epidermis at the beginning of the raised border. (Ocular 4, obj. iii, Leitz.)

- a.* Cornified plug, with layer of granular cells beneath.
- b.* Horny cell-nest.
- c.* Malpighian layer.
- d.* Œdematous degeneration of the prickles-cells.

FIG. 2.—Peculiar changes in the prickles-cells, from the epidermis of the raised border.

- a.* Prickle-cell with nucleus lying in a space.
- b.* Prickle-cell in which the spongioplasm is becoming broken up.
- c.* Prickle-cell in which the interepithelial fibrils or prickles have disappeared.
- d.* Prickle-cell in which the protoplasm has become homogeneous, the ectoplasm condensed and hardened, and the cell has become rounded, like a coccidium.

FIG. 3.—Drawing of a portion of the epidermis of the raised border. (Ocular 4, oil immersion, $\frac{1}{12}$.)

- a.* Prickle-cells.
- b.* Œdematous cell, partially cornified and globular; prickles lost, protoplasm homogeneous, granular centre through degeneration of the nucleus. Cell much swollen.
- c.* Cell similarly affected with œdema and with a hardened ectoplasm and an œdematous nucleus.
- d.* Multinuclear œdematous cell.
- e.* Multinuclear œdematous cells; one of the nuclei has become surrounded with protoplasm, forming a round-cell.

ON THE PLASMA-CELL, THE "SMALL ROUND-CELL," AND
THE CELLS OF CHRONIC INFLAMMATION IN GENERAL:
A SURVEY OF RECENT LITERATURE, WITH THE RE-
SULTS OF SOME FURTHER OBSERVATION AND EX-
PERIMENT.

By ARTHUR WHITFIELD, M.D., M.R.C.P.
(*From the Pathological Laboratory, King's College.*)

(*Continued.*)

SOME two years ago the careful examination of many sections of tissues, gained from many different sources, awakened in me the desire for an examination of experimentally produced lesions, and in carrying out a small research I had the valuable aid of my friend and colleague Mr. Lenthal Cheatle, who made all the experiments and brought much knowledge and many ideas to bear upon the subject. The reason that I am publishing this sketch under my own name only is because he did not especially wish to be brought into connection with it, and not that by any means the larger share in the work was done by me. The theories expressed here, however, are those which appear most probable to me, and I take the responsibility of them. As a matter of fact the work of Maximow, which I have abstracted above, appeared after we had completed our research as far as we could at the time, but as it did not interfere with the conceptions of the process which I had gained from my previous experience, I have preferred to put it in place beside the other literature I have quoted.

The points which seemed to me to require elucidation with a view to determining the origin of these cells were the following:—How long does it take an inflamed tissue to produce large quantities of cells by undoubted division? How soon are really large numbers of cells, apart from emigrated polynuclear leucocytes, produced in the tissues? Is there at present any method of staining which can reasonably be claimed to be specific for plasma-cells, in that by its use we may definitely trace the kinship of the least typical to the most typical plasma-cell? Are there any difficulties in the way of accepting either the total histiogenic view or the total hæmic view of the plasma-cell? Other minor questions came up as we were working, and were as far as possible elucidated at the time of their appearance.

As regards the first question, we found that it would be impossible to answer it with regard to the connective tissue itself, since to claim the cells produced in a short time as the result of division would be to beg the whole question. In a study which we were making, however, of the behaviour of vessels after ligation, the pleura of an animal became damaged, and this animal was therefore killed after twenty-four hours, and the irritated surface examined. Instead of the normal single layer of cells present, it was found that a great number had been produced, from five to eight in different parts. It might be objected that this multiplication was apparent only, and that it was due to oblique cutting of the serous membrane. To this a satisfactory rejoinder was forthcoming, since we found well-marked mitoses present in the endothelium. Although these cells are, of course, different from those implicated in the ordinary chronic inflammatory changes of connective tissue, especially as they are believed by some to be of epithelial rather than endothelial nature, I think the fact of their very rapid proliferation in this way removes any inherent difficulty in believing in the local production of large numbers of cells, more especially when we consider that according to most observers the changes in inflammation induce direct and not mitotic division of the connective-tissue and other fixed cells of the tissues—a method which would lead in all probability to a much greater rate of multiplication.

Next as regards the time in which large masses of cells are found collected in chronic irritation. Excluding the polynuclear leucocyte, which in our experiments seemed only to be attracted in any very considerable numbers when there was an additional element of sepsis present, we did not find in early inoculations that there was any very considerable massing within the first few hours. Working with pure cultures of tubercle bacilli, which we found much more easy to control as regards sepsis than the introduction of tubercular material, we found that after four days there was a considerable lesion present, but, except in the cavity formed by the needle track and the distension with the broth in which the bacilli were suspended, the cells were not aggregated into anything like the dense masses which one finds present in the chronic granulomata or in the reactive inflammation surrounding a malignant growth. Of course, as late as this the mitosis is in full swing, and the endothelium of vessels showed definite evidence of proliferation and heaping up, though mitotic

figures in the endothelium were not commonly seen. The stain for the bacilli showed great numbers of them present, and nearly all were found to have been taken up by the mononuclear cells. Definite and typical plasma-cells were not seen. At six days the infiltration had become very dense and consisted of a few polynuclear cells, large endothelium-like or epithelioid cells, cells absolutely indistinguishable from hæmic lymphocytes, and large cells very strongly simulating plasma-cells, and differing only from them in the less punctate nucleus. Excess of these was found in the lumen of some of the small veins and capillaries, three in a row, with no polynuclears accompanying them, being found in one small capillary. At twelve days formation of new vessels was progressing strongly at the edge of lesion, and it was especially noticed that some of this young endothelium had very strong tinctorial and morphological affinities with the plasma-cells of the most characteristic type. Resemblances were also noticed between what were apparently young fibroblasts, but it was impossible to be certain that these were not in reality detached endothelial cells, since Borst in his paper showed that endothelial cells can under the stimulus of an irritation proliferate and stream off from the parent stem, a process which I have also demonstrated as occurring very characteristically in the earliest stages of Lichen planus.

It is unnecessary to quote at greater length from our somewhat numerous experiments, since the point seems to be established that, compared with the extraordinary masses of polynuclear leucocytes which arrive on the field of septic irritation within a few hours, the collection of mononuclear cells is more slowly progressive.

The question of the specific staining for plasma-cells was answered at once in the negative. Although there are undoubtedly stains which render the characteristic plasma-cell particularly obvious and easy to study, there exists at present no microchemical reaction which is capable of determining the relations of the allied forms—on the one hand with the hæmic, and on the other with the histiogenic cells. The two stains which are undoubtedly the best are the polychrome methylene blue stain of Unna, and the methyl green pyronin stain of Pappenheim. We prefer the latter, because, in addition to giving the marked basophile reaction of the protoplasm, it also brings out well the curious punctate nucleus. It must, however, be pointed out that all young cells seem to develop this marked basophilia of the proto-

plasm, as is seen in the growing epithelium, young endothelium, newly forming fibroblasts, and the mononuclear cells of the blood.

Lastly, the difficulties in the way of accepting either the total histiogenic origin or the total hæmic origin of these cells, seem to me to be the following:—As regards the fixed connective-tissue cells, the plasma-cells do not appear by any means to be the most numerous where the signs of activity among the fibroblasts are greatest. They are, as is well known, particularly abundant in the neighbourhood of vessels; but these vessels, as justly observed by Unna, are often of such a size, and with so well developed a muscular wall, as to render the idea of their having emigrated from them difficult of acceptance. Secondly, in many cases there is an enormous preponderance of the mononucleated forms and forms indistinguishable from plasma-cells within the lumen of vessels, these being chiefly small veins and capillaries, generally of new formation. This point has been lost sight of by most of those working at the subject, but has been brought up by some, and to my knowledge it has never been satisfactorily answered. In examining a section of glanders recently, this point was again brought especially before me, and I counted in one small vein twenty-eight cells indistinguishable from plasma-cells with only a single polynuclear leucocyte, while in another I found seven such cells unaccompanied by any other leucocytes at all. Glanders is a disease in which there is a considerable emigration of polynuclear leucocytes, and it is therefore conceivable that their absence might be accounted for by the fact that they had wandered out of the vessel, but this would still leave unexplained the large number of mononuclear cells in a single piece of small vessel. This therefore seems to me to be an almost insuperable difficulty to the acceptance of the ordinary connective-tissue-cell origin of these cells, unless one assumes an immense streaming of amœboid connective-tissue cells towards the vessels and into their lumen—an assumption which, I think, in the present state of our knowledge, is untenable. Against the hæmic origin of these cells is the following fact:—In cases where one finds an immense streaming of polynuclear leucocytes from the blood to the inflammatory focus, one finds this excess represented in the main mass of leucocytes in the blood by a general increase of white cells formed almost entirely by a proportional increase of the polynuclears; and, as is well known in suppuration, it is not uncommon for the leucocytes, by an almost pure

increase of polynuclears, to rise from the normal seven thousand to eighty thousand or more. So in cases where there is a marked collection of mononuclear cells in many foci—as in general tuberculosis, for instance,—there should be an immense lymphocytosis in the general circulation, but this is not in accordance with the facts. There is, it is true, a general tendency for the lymphocytes to be relatively increased, but this is only slight to moderate, and is not accompanied by any remarkable increase of the total white cells in the blood. This, again, seems to me to be an insuperable difficulty in accepting the origin of all these mononuclear cells from the general circulation.

In reading some of the older literature on cellular pathology I thought it wise to study the original work of Flemming on the structure of the lymphatic glands, and in this work I was struck by the statement that he makes that, in his belief, the germinating centres and so-called lymph follicles are not permanent features of the lymph-node, but rather that they rise, attain a maximum, and subside again, according to the demands made upon the lymph system; and that some are rising while others are falling. In the endeavour to find out the origin of the cells in these centres I examined a good many sections of lymphatic gland and spleen stained by various methods, but especially by Pappenheim's pyronin methyl green, since it is well known that in the germ centre cells morphologically exactly resembling plasma-cells are found. In one or two sections I found the apparently direct origin of these cells by subdivision of the endothelium of the smallest central vessel, and it then occurred to me that this might be the mode of origin of some at least of the plasma-cells in inflammation. Granting for the moment that this is so, we find the difficulties already alluded to as to the origin of the plasma-cell from the ordinary connective-tissue cell, or from the hæmic cells alone, are immediately removed.

If the cells are derived from the endothelium of vessels containing only endothelium for their walls, it is obvious that some of these might be easily carried on into the stream, while others were thrown off externally. At the same time, the production being mainly a local one, the proportion of mononuclear cells in the general circulation would only be increased by that part of the cells which were not used up locally, but became swept on in the blood- and lymph-stream; and this slight increase in the proportion of mononuclear cells is exactly what

we find to be the fact. Again, such foci would be almost always found in the neighbourhood of vessels, as they are in reality ; and the fact that they are found not uncommonly surrounding vessels with well-organised walls might be explained by their being derived from the endothelium of the perivascular lymph space, which is, I think, identical with the perithelium or adventitial cell of Marchand. In this case also it is probable that any mononuclear cells in the vessels normally would emigrate to the site of the irritation, and the difference between the hæmic cells and those locally produced would become lost, both being produced from the same tissue in the same way.

If we inquire further for reasons for believing in this view, we shall find many facts tending to its support. In the first place, we know that in the bone-marrow we have a similar state of things. In the shafts of the long bones we have normally a fatty connective tissue which does not apparently produce either white or red corpuscles, but if a demand is made for either of these elements we find this hitherto inactive tissue becomes changed into a manufactory for white cells (leucoblastic marrow of Muir) or red cells, the latter more especially in pernicious anæmia, but also occurring to some extent in other severe anæmias. Also we know that in certain affections where great irritation is produced, especially in carcinoma, we find what are apparently glands infiltrated with carcinoma, in positions where no lymph glands are normally charted. These, according to this view, would be lymph collections called into being by the carcinomatous deposit, and would be merely the reaction of tissues against the hostile invasion. Lastly, my friend Mr. Mayou has drawn my attention to several sections of so-called follicular conjunctivitis in which actual new formation of typical lymph follicles may be observed. A paper on this or an allied subject appeared some time ago by Herbert, but he, as I think, wrongly derives the cell from ordinary connective-tissue corpuscles, and sees in the small so-called lymphocyte the descendant of the plasma-cell in every instance. This latter point is, I am quite convinced, erroneous, because in experimental sections it is quite easy to see that the plasma-cell appears later than the lymphocyte, at any rate in any abundance.

If this view, which is very closely allied to that of Marchand, be the correct one, the argument as to the origin of these cells from the local elements or the circulation will become pointless, as all cells

in the neighbourhood will be derived from the same tissue, have the same function and the same morphology; and it would be equally reasonable to quarrel about the origin of a given red corpuscle found in the aorta of a case of pernicious anæmia, with reference to its origin from the marrow of the rib or the newly formed erythroblastic marrow of the shaft of the femur.

CONCLUSIONS.

In chronic irritation, cells are collected at the site of irritation which are indistinguishable from the lymphocyte and the large mononuclear cell of the normal blood.

The process of collection is fairly rapid, but the speed is not so great as to be incompatible with their local production as opposed to their arriving by means of the blood-stream. They are produced first and in greatest quantities in the neighbourhood of capillaries and small veins, and many of these are found packed with them. It is probable that some may arrive by means of the blood-stream, but in the absence of a marked mononuclear leucocytosis it is improbable that all or even the majority are derived from this source. There is some evidence that the mononuclear cells of the blood are derived from endothelium, and that from the same source lymph-follicles may be developed as required in the permanent lymphatic glands, and also in tissues which normally contain no lymphoid tissue.

The small mononuclear cells or lymphocytes are not derived in the majority of instances from the plasma-cells, and the term "daughter plasma-cell" is therefore objectionable as implying an unjustifiable assumption.

The most probable origin of the locally produced cells is from the endothelium of vessels and of the perivascular spaces. They do not appear to be derived from the simple fixed-tissue corpuscles, though as the endothelial cell may form connective tissue, so these derivatives, if not too far specialised for the purpose of combating the irritant, may probably also settle down into connective-tissue corpuscles.

The function of these cells is still unknown, but it is almost certain that they are closely connected with the question of immunity, possibly, as I think, with local immunity. Bulloch found a slight but definite increase of the mononuclear hæmic cells to coincide with the development of experimental immunity.

A CASE OF ERYTHROMELALGIA, ILLUSTRATING ITS
RELATION TO RAYNAUD'S SYMPTOM-COMPLEX :
"DIFFUSION" OF THE PHENOMENA DURING PERIOD
OF EXACERBATION.

By F. PARKES WEBER, M.D., F.R.C.P.,

Physician to the German Hospital.

THE patient, Mrs. S. R—, aged 36, a Jewess from Roumania, was admitted to the German Hospital, July 13th, 1903, on account of great pain and tenderness in the feet. Following is a short account of her condition as observed from that time:—She is moderately well-nourished and presents no signs of any organic disease in the thoracic or abdominal organs, except that the cardiac impulse is rather excessive. The urine when tested was of rather low specific gravity, and contained the very faintest trace of albumen. The blood-pressure in the radial arteries appears to be high; by Hill and Barnard's pocket sphygmometer I estimated it to equal about 140 mm. mercury, and by Hill and Barnard's larger sphygmometer on the arm I found the pressure higher.* There is no goitre. Ophthalmoscopic examination shows nothing abnormal, excepting what is connected with hypermetropia. There is a considerable amount of deafness on both sides, apparently due to chronic dry catarrh of the middle ears, and the patient sometimes complains of a "rushing" or "roaring" sound in her ears. There is never any fever.

During the first days in the hospital both the feet were red and turgid with blood, and some of the toes were purple. The feet were painful, hyperæsthetic, and hyperalgesic, and were moist with sweating. All the signs were more marked in the left foot, and the left foot was usually objectively the hotter of the two. The engorgement with blood became more marked on allowing the legs to hang down in a dependent position over the edge of the bed. After some days, whilst the patient was being treated with the Faradic current, the

* An important question arising in this connection is the following:—Can long-continued or recurrent pain of several years' duration, such as that due to chronic erythromelalgia, help to raise the blood-pressure habitually, and thus become a main factor in inducing general arterio-sclerotic changes and chronic interstitial nephritis?

objective signs became much diminished. The left foot became much less engorged, and it no longer felt hotter than the other foot. Moreover, the signs could no longer be much increased by allowing the feet to hang down over the edge of the bed or by immersing them in hot water.

Yet more or less pain has persisted, and there is a variable amount of livid mottling of the feet, especially of the toes and distal part of the metatarsal region of the left foot. On one occasion by comparing the two feet I was able to convince myself that the metatarso-phalangeal region of the inner side of the left foot was distinctly swollen. Sometimes the lower part of the left leg is flushed. The patient describes the pain as often "streaming" down the left leg towards the foot. She says she cannot walk about.

A few small isolated patches of hyperæmia have been noted on various parts of the skin of the lower extremities. The skin of the hands and face are mostly found to be hyperæmic, and the tongue is generally somewhat cyanotic. During the acute stage soon after admission the hyperæmia of the hands was accompanied by hyperidrosis. There has never been evidence of obstruction in any of the main arteries of the lower extremities. There is no anæsthesia of any kind. Reflexes are normal. Reaction of the muscles to galvanism is normal. The girth of the calf of the left leg is, however, one inch less than that of the right calf.

Past history.—For two or three years before admission the patient had sensations of "burning" in both feet during summer, and for two years she could not put on her boots without pain. It was not, however, till the summer of the year 1902, she thinks, that her feet commenced to be very red, swollen, and painful. She had been quite confined to her bed for about the nine months preceding her admission. In her opinion both cold and heat seemed to make her feet worse. Apart from the present illness she has never had any serious disease, but has occasionally suffered from epigastric pains, and is subject to constipation. Menstruation is regular. There is no history of hæmoptysis or hæmatemesis, nor of blood being noticed with the fæces or in the urine. Both her parents reached old age. Her husband, a traveller, is living and healthy, and she has two children, both living and healthy, aged seven years and nine years respectively. Before these children she had two abortions at the third month.

Treatment.—Various methods have been tried, including the local application of heat and cold and the Faradic current, the local application of belladonna liniment and of an ichthyol ointment, local hypodermic injections of vaso-constrictor drugs, and the internal use of iodide of potassium (small doses only), but nothing seems really to have had much effect. It is true that not long after admission to the hospital there was a sudden and decided improvement in the objective and subjective symptoms whilst the patient was under local treatment by the Faradic current. On the whole, however, I think that the patient at the time of admission was suffering from an acute exacerbation which subsided, possibly independently of the treatment, soon afterwards, leaving her in a somewhat varying chronic or subacute condition of the disease, a condition which has persisted in spite of rest in bed and treatment, and which is aggravated by every attempt to get about on her feet. She left the hospital on October 9th, 1903, but has been seen again recently, when more pain was complained of.

REMARKS.

I think the foregoing case must be regarded as one of chronic erythromelalgia in a patient free from any “organic” disease of the central nervous system, and without alcoholic or arsenical neuritis; in fact, it must be regarded as an “*idiopathic*” form of *erythromelalgia with occasional tendency to spreading* or diffusion (generalisation) of phenomena. The left foot is the part mainly, but not exclusively, involved. There is occasional flushing or lividity of toes in the right foot, and pains are occasionally complained of there as well as in the left foot. Moreover, there is habitual hyperæmia of the face and tongue; and, during the period of exacerbation (and more or less “generalisation”) of the disease, when the patient was first admitted, the right foot was also markedly affected, and both the hands were hyperæmic and inclined to sweat.

Dr. H. Batty Shaw (*Trans. Pathological Society of London*, 1903, vol. liv, p. 168) found arterial changes present in the parts removed by amputation from three cases of erythromelalgia, and it is not unlikely that some arterial changes are to be found in all *really chronic* cases of erythromelalgia and Raynaud’s phenomena, and that they are already commencing in the present case. I am, however,

far from believing that such arterial changes are in any sense primary in these affections. The early symptoms, both of erythromelalgia and of the cases classed as "Raynaud's disease," are surely of nervous origin, and can be best explained on the supposition of a vaso-motor disturbance due to the central nervous system. The fact that symptoms like erythromelalgia have been observed in patients suffering from arsenical neuritis (as in some cases during the famous epidemic of arsenical beer poisoning in the year 1900) does not prove that such symptoms were caused by the neuritis. They may possibly have been caused by associated changes in the spinal cord, and this explanation is supported by the fact that in careful histological post-mortem examinations on cases of arsenical as well as on cases of saturnine neuritis the pathological changes in the nervous tissues have been found not by any means always limited to the peripheral nervous system.

Both from clinical observations and from theoretical considerations there appears to be no hard and fast line between erythromelalgia and Raynaud's phenomena. During the active stage of Raynaud's phenomena the arterioles of the part affected are spasmodically contracted, and whether the part appears white ("local syncope") or blue ("local asphyxia") depends on whether the walls of the venules share in the contraction ("local syncope") or are engorged with blood ("local asphyxia"), like the venules are in hæmorrhagic infarction of the lung. The white variety ("local syncope") may, as Barlow points out in Allbutt's *System of Medicine* (vol vi, p. 578), be compared to simple pallor from cold, whilst the blue variety ("local asphyxia") may be compared to temporary cyanosis of extremities from cold. In the *chronic stage of erythromelalgia* the livid mottling, so noticeable in the toes of the present case, may be compared to the "local asphyxia" of Raynaud's phenomena, and indicates probably that there is local contraction of arterioles, with engorgment of venules. It seems probable that in the *acute stage* this local contraction of arterioles is temporarily overcome by increased arterial blood-pressure and active flushing of the whole affected part. This supposition amply explains the excessive arterial pulsation, increased redness, and local elevation of temperature characteristic of the acute stage of erythromelalgia. It explains also why the muscular coats of the arterioles should become hypertrophied both in erythromelalgia and chronic or recurrent Raynaud's phenomena.

It is clear that, according to this view, no sharp boundary can exist between erythromelalgia and Raynaud's phenomena. Moreover, a number of clinically intermediate cases have been recorded by various observers, as may be gathered from a perusal of R. Cassirer's interesting study of the subject in his *Vasomotorisch-trophischen Neurosen* (Berlin, 1901, p. 150).

Just as the milder forms of Raynaud's phenomena merge into the effects produced normally by exposure to cold, so also it seems possible to me to regard the milder forms of erythromelalgia as merging into the phenomena produced in some persons by sudden warming of the feet. I refer to the local swelling, heat, pain, tenderness, and redness which may at times be produced in some middle-aged persons by excessive walking, and at times by suddenly warming their feet in the dependent position; for instance, on foot-warmers during railway journeys in cold weather.

In regard to mild types of erythromelalgia and Raynaud's phenomena I will finally allude to a case I recently saw, which, I think, illustrates a mild, "chilblainy form"* of Raynaud's phenomena. The patient is a girl, about 12 years old, suffering from mitral valvular disease of the heart as a result of acute rheumatism. She is somewhat mentally deficient, and has very thick lips and slightly notched upper central incisor teeth. Her fingers (which, by-the-by, are extraordinarily long in proportion to her stature) are *covered by scars*, which, according to her mother, are results of attacks of *chilblains* during cold weather. Her feet are not scarred in the same way. I regard the affection of the fingers in this child as illustrating a very mild form of Raynaud's phenomena, possibly, as the child has "notched teeth," associated with congenital syphilis.

* *Vide* L. Dekeyser's paper on "The Connection of Raynaud's Disease to Chilblains" in the *Journal Médical de Bruxelles*, November 13th, 1902.

SOCIETY INTELLIGENCE.

DERMATOLOGICAL SOCIETY OF LONDON.

AN Ordinary Meeting of the above Society was held on Wednesday, January 13th, 1904, Dr. H. Radcliffe-Crocker in the chair.

The following cases were demonstrated :

Dr. S. E. DORE showed a case of *Pityriasis rubra pilaris* in a girl aged 20 years, a housemaid by occupation. The eruption began six weeks ago on the fronts of the knees in the form of bright red patches, with thickening and accentuation of the natural lines of the skin, and a certain amount of roughness and scaling, but without the laminated scales of psoriasis. Smaller patches followed on the extensor and flexor surfaces of the legs, on the ankles, and on the dorsal surfaces of the toes. The anterior axillary folds and the hands became affected about the same time. The follicular nature of the eruption was well shown on the dorsal surfaces of the hands and fingers, and on the palmar aspect of the left wrist there was a characteristic group of conical horny papules. The skin of the palms was rough, scaly, and thickened. There was also keratosis of the soles of the feet. The finger- and toe-nails were unaffected, except for some distortion of the nails of the great toes, probably independent of the disease. The scalp was somewhat dry and scaly. The skin of the face was harsh and rather redder than natural, especially above the eyes, but there was no definite eruption.

The trunk had only become affected during the last fortnight, and in a way that differed from the eruption on the rest of the body. A broad band of scarlet erythema extended round the waist and abdomen, and into the groins and upper parts of the thighs. The redness easily disappeared on pressure, there was no scaliness or thickening of the skin, and the follicles were not picked out.

There were no subjective symptoms, and the patient was, as far as could be ascertained, healthy in every other respect. She gave a history of influenza a year ago, quinsies two years ago, and peritonitis when she was nine years of age.

There was no difference of opinion as to the diagnosis of *Pityriasis rubra pilaris*, but the short duration and acute onset of the disease, with the preponderance of the erythematous element, were admitted to be unusual features.

Mr. WILLMOTT EVANS showed a case of *Granuloma of the hands* of undetermined nature. The patient was a woman 31 years of age, and for ten months she had had small nodules on the palms of the hands, four on the right and two on the left, each of about the size of half a marble. Soon after their first appearance they began to break down on the surface, and when first seen two months before exhibition the nodules were ulcerated. The only symptom was a little tenderness. One nodule had been examined microscopically, and it was found to consist of granulation tissue, but no micro-organisms had been seen in the sections. The pus from the surface was not found to contain any tubercle bacilli, and a culture showed only some staphylococci. It was intended to scrape the nodules and examine the material removed. The nodules were evidently granulomata, but there was no evidence to show to what they were due.

Dr. GRAHAM LITTLE showed:

1. A case of numerous small flat tumours of an indeterminate nature occupying the face, the neck, the upper part of the chest and back of a woman aged 44. No diagnosis was offered that was acceptable to the majority by any member present, and as the case therefore seems to merit a more detailed description than is possible in this note, a full report of it will be presented at a later date.

2. A case of *Dermatitis herpetiformis* in a boy aged 14, but very undersized for that age. The disease had appeared six months previously as a papular eruption, with a rapid transformation of the papules into vesicles and pustules. These were grouped in a herpetiform manner on the lower part of the abdomen, the inner and anterior aspects of the thighs and legs, and on the face. The boy was an unhealthy anæmic subject, and much suppuration and thickening of the affected surfaces had taken place, leaving numerous pigmented patches in the site of the older lesions. Itching had been a prominent feature throughout the case.

3. A case of *Tuberculides* of the *Acne scrofulosorum* type on the legs and thighs of a girl aged 13. The history was very uncertain, and all that could be made out was that a dry harsh condition of the skin had been present since birth or soon after; that an ointment, the character of which it was impossible to

ascertain, had been applied for this condition four weeks ago; and that the "pimples" had appeared soon after. The history therefore, as far as reliance could be placed on it (which was not very far, as the accounts were varied so frequently), would rather point to an acne irritative in origin. But the lesions in numerous instances were of the appearance supposed to be distinctive of *Acne scrofulosorum*; that is to say, deeply cyanosed papules with a necrotic centre, apparently involving the true skin, not at all itchy, and accompanied by a pronounced coldness and blueness of the legs and extremities generally. There was little suppuration as compared with the condition usually found in the folliculitis due to local irritation, and this was confined to a minute necrotic point in the middle of the papule, an appearance entirely in agreement with the lesion of *Acne scrofulosorum*, so that if the latter disease could be diagnosed, as was claimed, by the presence of these distinctive papules, this was an instance of it. The ointment moreover had been omitted for two weeks without any corresponding improvement in the eruption, which covered the legs thickly, the thighs less closely. There was no history of tuberculosis.

Dr. J. M. H. MacLeod showed *a case for diagnosis*. The patient was an infant aged 4 months, and he presented on the back an eruption consisting of polycyclical areas of pale skin enclosed by raised red, very slightly scaly borders about 2 mm. in breadth. These areas were the result of the coalescence of more or less circular lesions of the same type. These lesions were ringed from the first and did not begin as macules or small plaques and spread eccentrically, clearing up in the centre in the process. The eruption occupied the scapular and interscapular regions of the back and spread down to the waist, and there was also a single oval patch about one inch in its long diameter and of the same nature on the chest. The duration of the eruption was about two months. Besides these lesions the child suffered from greasy scurfy patches on the scalp.

On seeing the case the exhibitor believed it to be *Tinea circinata*, but had been unable to demonstrate the fungus in two examinations.

With this diagnosis several members agreed, and Dr. Radcliffe-Crocker referred to a similar case which he had portrayed in his atlas. Dr. Colcott Fox and Dr. Whitfield, on the other hand, expressed some doubt regarding the diagnosis.

NOTE.—A careful microscopical examination was made by the exhibitor a week after showing the case, and again with negative results. The exhibitor now regards his original diagnosis as incorrect and believes the case to be of the nature of circinate seborrhœic dermatitis.

Dr. SEQUEIRA showed (1) a single woman aged 32, suffering from *Lupus erythematosus* of five years' duration. The interest of the case lay in the extensive involvement of the buccal mucous membrane on each side and the very small amount of skin affection. The lobules of both ears presented small linear patches, and there was a small area of the scalp affected. At the onset, five years ago, the patient stated that the cheeks were involved, but there is now no trace of disease. There is no history or evidence of tuberculosis.

(2) A married woman aged 30, with an unusual form of *Scleroderma* (morphœa) on the left leg. Eighteen years ago a small circular, purplish patch appeared on the left leg about the middle of the antero-external surface. This gradually increased and is now an oval area, two and a half inches long and two inches broad. At the margin the colour is dull red, and there are superficial scales; in the centre the colour is paler and the surface is smooth. This patch of skin is thick and has the "unpinchable" quality. Eighteen months ago an oval patch about three quarters of an inch across appeared on the skin close to the first spot, and two smaller spots have developed during the past two weeks. These spots are dull livid red, and the surface is scaly. They are not painful or tender, and there is no abnormality of sensation. The patient is otherwise quite well.

OBITUARY.

ALFRED SANGSTER, 1845—1903.

On the afternoon of Monday, the 14th of December, 1903, in the clear wintry atmosphere characteristic of the place, but tempered with unusual sunshine, amid a large concourse of sorrowing relatives and friends, including representative inhabitants and officials of the town, was laid to rest, in the hallowed ground attached to the grand old twelfth-century Church of St. Peter-in-Thamet, all that was mortal

of one who was held in more than ordinary esteem and affection. After fourteen weeks of severe stress and suffering, borne with exemplary patience and fortitude, Alfred Sangster succumbed on the 9th of December to the ailment of which he had been the subject for forty years or over.

Born at Streatham on the 24th of October, 1845, he received his early education at Richmond, commencing in 1858, and two years later was removed to the Denmark Hill Grammar School under G. P. Mason, B.A., who enjoyed a considerable reputation as a teacher at that time.

On leaving school, in obedience to his father's wish, he joined him for a time in business, but this proved irksome, and he determined to enter the medical profession.

In 1865 he became a registered student at Guy's Hospital, where he studied assiduously and earned the favourable commendations of the late Cooper Foster, Walter Moxon, and others, who noted and spoke of his industrious work. In January, 1867, he proceeded to Aberdeen University, with the object of obtaining special teaching in anatomy, botany, and chemistry, work which undoubtedly proved of much advantage to him at a later time. At the end of the same year he became an undergraduate at Cambridge University, joining Gonville and Caius College, where he took his B.A. degree with honours in the Natural Science Tripos in 1871. From this time he worked alternately at Guy's and the Cambridge Medical Schools, graduating M.B. in 1875, and obtaining the Membership of the Royal College of Surgeons the same year, and that of the Royal College of Physicians in 1876, of which latter College he was elected a Fellow in 1885.

After taking his M.B. he came to London and served as Clinical Registrar and Chloroformist at the Evelina Hospital for Sick Children.

For reasons of health his old friend Moxon, recognising the cardiac valvular lesions resulting from acute rheumatism when at school, forbade his acceptance of the surgical dressership which was offered to him, and he later induced him to abandon the idea of general practice and to take up a special branch of medicine.

Obtaining a Clinical Assistantship (which he held for several years) at the Blackfriars Hospital for Diseases of the Skin, and

which at that period offered facilities for study unobtainable elsewhere in the metropolis, he commenced his work in the department of medicine which occupied his time and energies during the whole of his professional life.

Early in the eighties he was elected physician to the Department for Diseases of the Skin at the Charing Cross Hospital, and became very popular among his colleagues and pupils, devoting considerable time to the writing of original papers, some of which were communicated to the medical societies and illustrated by the careful hand-copying of microscopic sections, in which he was an adept. His contributions to medical literature were numerous and creditable alike to his ability and industry. Among them were—“*Observations on the Muscular Coat of Sweat-glands*,” which appeared in the *Quarterly Journal of Microscopical Science*, vol. xvii. He wrote also upon “*Hypertrophic Lupus, with the Histology of its Stages*” (*Path. Soc. Trans.*, 1878); “*Anomalous Pigmented Rash*,” to a special phase of which he applied the title, which has been permanently accepted, of “*Urticaria pigmentosa*” (*Clin. Soc. Trans.*, 1878); “*The Non-glandular Theory of the Origin of Molluscum Contagiosum*” (*Med.-Chir. Trans.*, 1880), showing that the granular and corneous layers of the epidermis are represented in the growths, and that the hyperplasia of the rete may be reactive and not primary; “*The Histology of Molluscum Fibrosum*” (*Clin. Soc. Trans.*, 1880); “*Ichthyosis and Psoriasis of the Tongue*” (*Path. Soc. Trans.*, vol. xxxiii).

He also contributed a valuable paper to the International Medical Congress in 1881, which met in London, on “*Papillary Tumour of Scalp*,” and later special articles in Quain’s *Dictionary of Medicine* and Heath’s *Dictionary of Surgery*; clinical lectures and various contributions to the medical journals.

In 1882 he was one of the co-founders and first honorary secretaries of the Dermatological Society of London, regularly attending its meetings and exhibiting cases of interest until 1897, when, feeling himself to be no longer able to attend to practice in Wimpole Street or at hospital, he retired to St. Peter’s-in-Thanel, near Broadstairs. In recognition of the esteem in which he was held by its members and the invaluable work he had done for the Society for so many years, his name was added to the distinguished

list of Honorary Members of the Dermatological Society. On retiring from the Acting Staff at Charing Cross Hospital, he was elected Honorary Consulting Physician to the Department for Diseases of the Skin.

Apart from the pen, he wielded with considerable ability the pencil and brush, all adding to the advancement of his studies in medical science, and also to the better appreciation of Art, which he regarded, with Lavater, as "the highest sagacity and exertion of human nature unconnected with the struggles and contests of ordinary life."

His long lasting ailment had from the earliest prevented him taking active part in sports or athletic exercises, but he was not lacking in practical sympathy in this direction, as was shown by his popularity amongst all classes of students.

His musical tastes were of no mean order, and often he took a leading part in the arrangement of musical entertainments, both in London and elsewhere (chiefly in aid of charity), contributing a good song or two himself, or assisting the orchestra with his 'cello, which instrument, when his enforced retirement provided greater leisure, was a real solace to him.

His fondness of books, prose or poetry, was very constant. A keen admirer of Ruskin, he entered fully into the spirit of that great writer when he said that "the written poem is only poetry *talking*, and the statue, the picture, and the musical composition are poetry *acting*."

Sangster's family was connected for upwards of one hundred years with the "Worshipful Company of Bowyers." His grandfather, Samuel, was Master from 1834—36; and his father, William, also from 1864—66. He himself became a member of that Livery in 1866, and served consecutively the offices of Renter and Upper Warden, being unanimously elected to the honorable office of Master from 1884—86, and presiding on all occasions, as would be expected of him, to the greatest satisfaction of the Liverymen. He took much interest in the history of the Company, which is very ancient, and often described to his guests, with evident pride, its progress from the time when it was a Guild controlling the trade of bow-making, and providing these slim weapons of warfare for the battles of Crecy, Poitiers, and Agincourt. He was very highly esteemed by all its

members, but the great pleasures of a social gathering, in which he was so fitted to take a prominent and graceful part, cannot find place in a notice such as this. Sangster was ever fond of his home, and his domestic life was a very happy one, although saddened, with almost unusual frequency, by the loss of near relatives. He married the day after he obtained the diploma of M.R.C.S.Eng., in July, 1875, one whose warm-hearted devotion, affection, and self-sacrifice—for she was legitimately proud of her husband—proved an ever-increasing support and comfort to him. To her untiring zeal and attention, which never waned, he rightly attributed a considerable prolongation of his life. His widow, one son, and two daughters, to all of whom he was devotedly attached, survive him.

The early training he enjoyed in botany and the like enabled him to turn to intellectual profit much of the time he was forced to spend in his house and garden. Literary pursuits always attracted and much engaged him, one of his last productions being a series of articles, founded upon careful reading and research, on "*The History of St. Peter's, with Archæological Notes*," which were published in the parish magazine. To the last he took unvarying interest in the University Extension Lectures, and even spent a fortnight at Oxford, attending a course, a few days before he finally took to his bed.

Socrates once wrote, "That the way to gain a good reputation is to endeavour to be what you desire to be." Sangster followed this maxim closely. He was essentially honest, straightforward, and conscientious, with a buoyant, courteous, and winning manner. Non-assertive almost to a fault, he possessed a quick and transparently genuine sympathy with all around him—especially with those who were in need,—and his loyal attachment to friends, whose affection he valued far more than their admiration, was evident both in his kindly smile and the cordial shake of his hand. He possessed "the soul which scorns the vain." In his practice he was careful even to over-anxiety, and often expressed to one of his most closely attached friends the fear that the best he had done might not prove the best possible for his patient.

" For his bounty
There was no winter in't."

And the entertaining of his old friends, when he was no longer able

to visit them, constituted one of the chiefest pleasures of his later years.

In all the various phases of life he was exceptionally attractive, his conversational powers and sense of humour never failing to impress his companions, new and old.

It would be idle to deny that there were occasional periods when the presence of functional disorders, added to the constant stress of structural disease in a vital organ, together with the bitter disappointments due to his inability to practice with increasing success the profession he served so well, produced dejection and sadness.

“For what avail the choicest gifts of Heaven
If failing health and spirits go amiss?”

But his manliness soon prevailed and threw them off. And who could have borne his burden better? Alas! who so well?

For his old friends and contemporaries in the department of Dermatology, with whom many happy reminiscences abide, it may be truly said that the void caused by the loss of Alfred Sangster is and will be most deeply felt.

“. . . And when the stream
Which overflow'd the soul was passed away,
A consciousness remain'd that it had left,
Deposited upon the silent shore
Of memory, images and precious thoughts
That shall not die, and cannot be destroyed.”

J. H. S.

GEORGE THIN, M.D.St. ANDREWS, L.R.C.S.EDIN.

Dr. George Thin died on the 27th December at Nice, after a long period of trying illness. Though not a very old man, his failing health had for years debarred him from the full activity of practice. He was therefore little known personally to the younger members of the profession, though his reputation remains as one who has done good work from the pathological aspects in the subjects of Dermatology and Tropical Medicine.

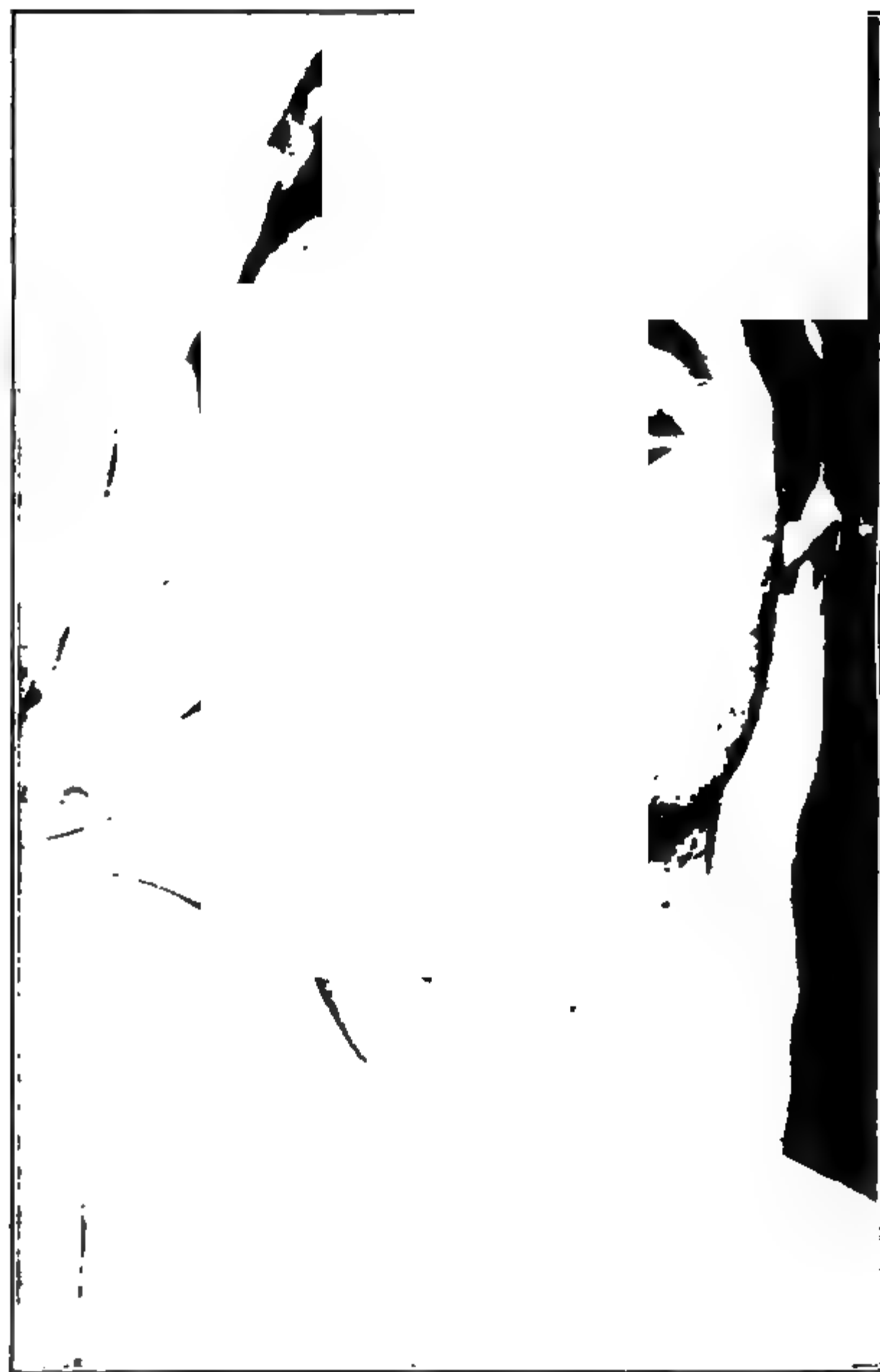
Dr. Thin was educated in Edinburgh, taking his first qualifications in 1858, and early in his medical life went to China, where he practised successfully for some years in Shanghai. Returning to London, he rapidly obtained a considerable reputation and practice in the department of tropical diseases. He always took a keen interest in the scientific aspects of his profession, and soon became known as a skilled histologist.

Cutaneous diseases attracted his attention from the commencement, and much of his work in pathological and histological anatomy was in the field of Dermatology. His observations are quoted on subjects such as the pathology of cancerous diseases of the skin, the pathology of ringworm and leprosy. His work on sprue or psilosis contained the results of his tropical experience, with observations on patients continuing to suffer from this serious disease in Great Britain, and is an important contribution to Tropical Medicine.

Dr. Thin retained the greatest interest in histology, and it is within the recollection of all interested in the subject how, with his own hands, he traversed and verified to his own satisfaction the observations and experiments by Laveran and those who follow him in the elucidation of malaria. Within the last four years he carefully explained to the writer a new method of hæmatoxylin staining which he had elaborated and in which he was much interested. Though active in mind till the last, his failing health prevented him from following out certain researches which had engaged his attention.

Dr. Thin never became attached to a dermatological clinic, a fact which is much to be regretted. For his keenness of observation, his exceptionally good scientific training, and his clearness of expression could not have failed to have rendered him a first-rate teacher. His interest in Dermatology and in his dermatological colleagues remained great to the last. In 1881 he was a Co-Secretary of the Dermatological Section of the International Congress of Medicine, held in London, and he was an Original Member of the Dermatological Society of London. The fact of his not holding office in one of our hospitals, coupled with his retiring disposition, naturally produced a gradual narrowing of his acquaintance amongst his junior colleagues, but his sound observation, wide experience, and careful criticism will be much missed by those who came more immediately in contact with him.

PLATE I.

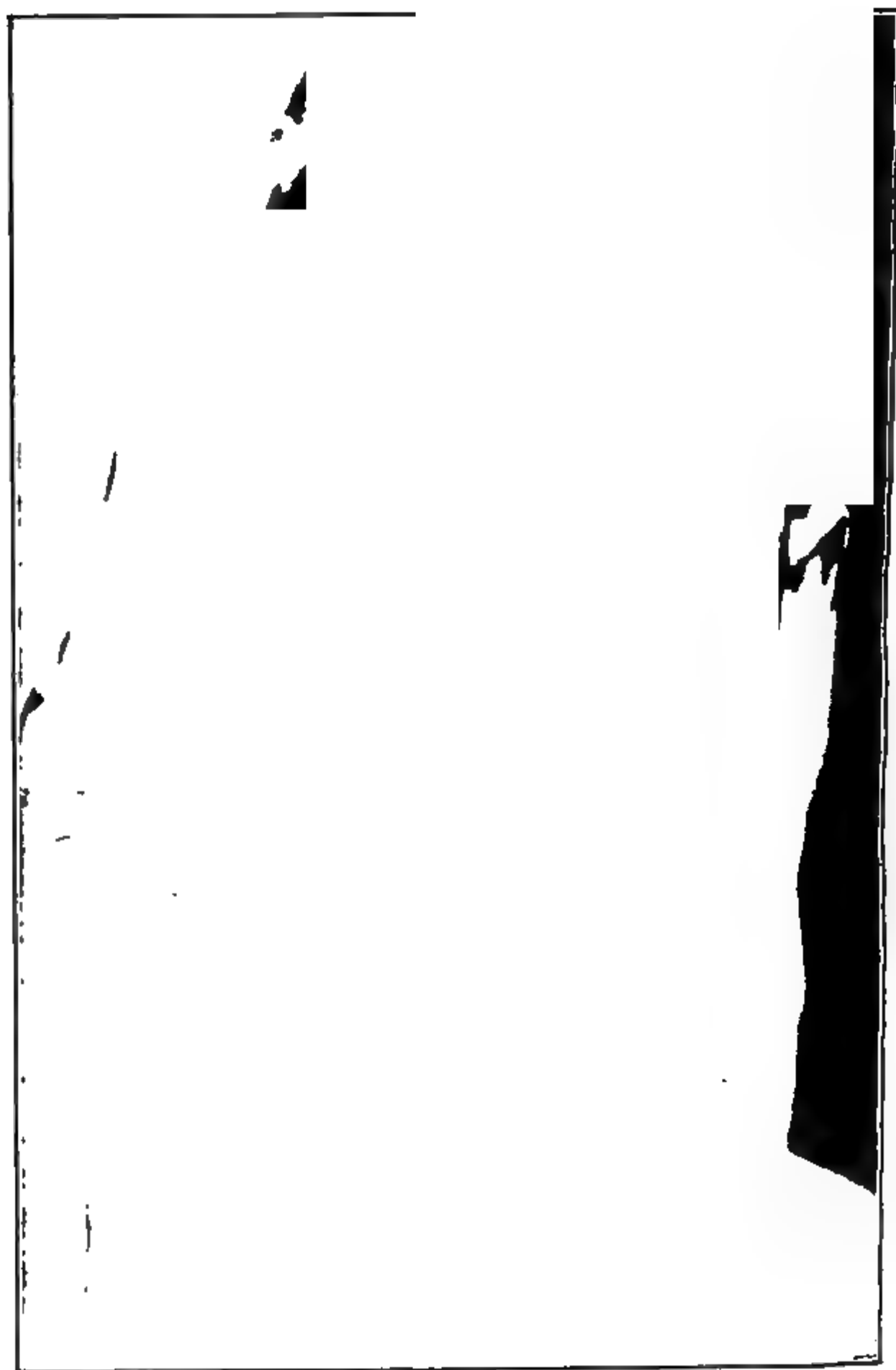


NO. 1. VARICELLA : 1ST DAY OF THE ERUPTION.

PLATE II.

NO. 2 VARIOLA: 2ND DAY OF THE ERUPTION

PLATE I.



NO. 1 VARIOLA . 1ST DAY OF THE ERUPTION.

PLATE II.

NO. 2. VARIOLA. 2ND DAY OF THE ERUPTION

PLATE III.

NO. 3. VARICOLA 4TH DAY OF THE ERUPTION

PLATE IV.

NO. 4. VARIOLA : 8TH DAY OF THE ERUPTION.

PLATE VI.

NO. 8. VARIOLA MALIGNA. 2ND DAY OF INVASION, TWO DAYS BEFORE
REGULAR ERUPTION.

NO. 9. VARIOLA IN A NEGRO: 3RD. DAY OF THE ERUPTION.

PLATE VII

NO. 7. VARIOLA MALIGNA: 3RD DAY OF INVASION



PLATE VIII.

NO. 8. VARICELLA 13TH DAY OF THE ERUPTION, SHOWING THE MUCOUS MEMBRANE OF THE MOUTH INVOLVED.

PLATE IX

No. 10. VARIOLA IN A NEGRESS, PREGNANT, CONFLUENT ERUPTION RECEDING THREE HOURS BEFORE DEATH



PLATE X.

NO. 11. VARIOLA MALIGNA, CORYMBOSE VARIETY

PLATE XI.

NO. 12 VARIOLA HAEMORRHAGICA PUSTULOSA.

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THE RECENT EPIDEMIC OF SMALLPOX IN THE UNITED STATES.

*Being an Address delivered at the Annual Meeting of the Dermatological Society
of Great Britain and Ireland, on Wednesday, May 27th, 1903.*

BY WILLIAM THOMAS CORLETT, M.D.

MR. PRESIDENT AND GENTLEMEN,—First I wish to express to you my appreciation and thanks for the honour conferred in inviting me to address you at the annual meeting to-day. It occurred to me, since you in England have so recently experienced an epidemic of smallpox, that a cursory talk, with bedside illustrations, of an extensive epidemic of the disease which has prevailed so generally throughout the United States during the past four years might not be wholly without interest at this time. Furthermore, the conditions which prevail both in Great Britain and America closely resemble each other, and the people in the main belong to the same type.

The American Continent, previous to its discovery by Columbus, seems to have enjoyed immunity from variola. We have it from trustworthy authority that the disease was first carried to the Island of San Domingo by Columbus in one of his late voyages, and that it spread to the mainland, carrying consternation and death to the natives, who, scattering far and wide, spread the disease far into the interior. To the earlier settlers of New England smallpox was not unknown, and soon after Jenner's great discovery in 1798 vaccination was practised in the infant republic of the New World. The

practice of vaccination in America was stimulated by the fact that the slaves imported from Africa readily fell victims to the disease, which occasioned great financial loss. To the commercial mind it soon became apparent that by the practice of vaccination human merchandise might be saved from destruction, and in this way was added a great stimulus to the most potent means of preventing the spread and of modifying the virulence of variola. To the student of medical history it must be readily apparent that different epidemics of smallpox vary greatly in severity, while the clinical observer cannot fail to note the marked variations in type which the disease from time to time assumes.

In the epidemic which began in the United States in 1898 the disease appeared within a few months in various localities remote from each other, and presented two distinct types which in clinical appearance bore little resemblance to each other. In Boston and vicinity the disease assumed a virulent form from the outset. In New York likewise it was attended with a high mortality; while in Philadelphia, about 100 miles away, it was exceedingly mild, so that great difficulty was experienced by the health authorities in maintaining strict quarantine measures.

In the State of Ohio the epidemic began in the small villages in an exceedingly mild form, so that great difficulty was experienced in making a correct diagnosis—in fact, a correct diagnosis was not made for several months, it being regarded as a severe form of varicella. The marked predilection on the part of some medical men to give new names, and to describe what they maintained to be new diseases, soon asserted itself. The family doctor readily adopted the name of “Cuban Itch,” while those who were more literary read long papers before medical meetings, and spoke of an epidemic of a new disease, which, while resembling variola, did not conform to the cardinal features of this disease.

It is important, although sometimes difficult, to trace the source of infection. It was thought by many that smallpox was imported to Boston and New York from Europe, while in Ohio and Pennsylvania it was readily traced to the Southern States, where in turn it is supposed to have been imported from Cuba, where, previous to the American invasion, the disease had been endemic.

It is sad to contemplate that many lives have been sacrificed, and

great expenditures of money made necessary, from the fact that the milder and atypical cases of sporadic smallpox go unrecognised, thus allowing an epidemic to develop before its real nature is made known.

I shall endeavour to-day to illustrate by means of photographs thrown upon the screen not only some of the most common types of variola as delineated in the books, but likewise some abnormal types which prove so perplexing in making a diagnosis.

First, we will consider what may be called the natural course of variola in the unvaccinated—*variola vera*. This may be regarded as the true type from which various sub-types and clinical forms proceed. In the first series the negatives were taken daily at the same hour. The subject was a young man aged 22, a medical student, who had never been successfully vaccinated. No. 1 represents the disease on the first day of the eruption, or the fourth day of the disease. At this time the mottled condition of the skin of the face may be detected, best seen on the forehead, cheeks, and about the mouth. A few reddish papules may likewise be seen, which resemble the bites of a mosquito. The patient at this time was quite ill; the invasion-fever, which had attained the height of 104° F., was rapidly subsiding.

No. 2 was taken the following day, and shows the distribution and early formation of the eruption in its typical form. The face is mainly involved, while to a less extent it may be seen on the upper part of the trunk. There are likewise a few lesions on the lower part of the trunk, and the faint mottling in the palms of the hands seen the first day has given place to a slight papular eruption.

No. 3 shows the disease on the fourth day of the eruption. The lesions have now increased in size and many new ones have appeared, so that the number of pocks may be considered complete. This is what is known as the vesicular stage. The lesions on the palms of the hands are more pronounced, and at this time and in this case no difficulty need be experienced in making a diagnosis from the eruption alone. On the following day the patient felt much better, the primary fever having fully subsided: he sat up, did not feel faint or weak, and regarded it as an amusing occurrence, having none of the horror with which he had heretofore associated smallpox.

On the fifth day of the eruption, however, the patient was decidedly

ill, and on account of extreme weakness could scarcely hold up his hand sufficiently long to be photographed. At this time the eruption on the palms was very prominent, a point of some diagnostic importance, although not to the extent one would infer from some descriptions of the disease, as somewhat similar conditions are encountered in syphilis, and to a less extent in varicella.

On the sixth day of the eruption the lesions were rapidly maturing in the order in which they had come; first on the face and scalp, then on the trunk, next on the extremities, and finally on the feet. Usually the exanthem on the feet matures from twenty-four to thirty-six hours later than that on the face. It was further noted at this time that the patient could not sit up without support. The prognosis was naturally very grave, and for two days his life hung in the balance.

Nos. 4 and 5 were taken on the eighth day of the eruption, and are the last of this series. As will be seen, the skin lesions still remain at their height, although a few on the face have begun to show signs of subsidence.

There is a feature in this series I wish to emphasise, namely, that the lesions are for the most part tense, while in certain stages only is there more or less umbilication. Umbilication is usually made much of from a diagnostic standpoint. In my experience, umbilication is usually present at some period of the eruption, but it does not remain throughout the whole course of the disease. Umbilication is likewise encountered in varicella, although less frequently, and usually to a less extent. In the last two negatives remains of a former umbilication may still be detected, although umbilication as a whole could not be considered a prominent feature. Too much stress, therefore, must not be placed on the presence or absence of umbilication in making a diagnosis.

Cases of malignant smallpox are alarmingly frequent in some epidemics, and always occur in the unvaccinated or those unprotected by vaccination.

The next series shows the disease in a severe form—*variola maligna*. Malignant smallpox often terminates fatally before the nature of the disease is suspected. The slightest clue, therefore, should not be disregarded in encountering these cases. To determine if possible the earliest objective signs of smallpox a series of negatives was taken during the stage of invasion.

No. 6 was taken on the second day of the disease, and two days before the eruption was supposed to appear. The subject of this illustration was a nurse at Lakeside Hospital, Cleveland, who was opposed to vaccination—a dangerous fad for one following the occupation of nurse. At the time the negative was taken nothing except a slight flushing of the face could be detected, with the exception of a few indistinct papules, which showed more prominently in the negative. About the hair-follicles there were also faint efflorescences. To the naked eye, however, there was nothing characteristic, and had I been asked whether or not an exanthem was present, I should have answered in the negative. The photograph, however, presents quite a different picture. In the illustration we have a number of lesions which are apparently indurated, standing out in bold relief, an observation of extreme interest, and one, I think, of some importance. I have in similar cases been able to detect during this pre-eruptive stage a half-dozen or more papules which resemble a mild acne, and apparently are an inflammation of the cutaneous follicles. In these cases the disease had invariably pursued a malignant course. In character the papules have a reddish base, which is of a brighter colour than that usually observed in acne, and the sebaceous secretion seems to be normal. I have been unable to trace any relationship between these premonitory lesions and the regular eruption which follows. As the latter appears the papules seem to subside, or at least become lost in the general efflorescence which ensues. If subsequent observations prove that these lesions are only found in malignant smallpox, it may serve a valuable means not only of diagnosing the disease, but may likewise furnish an important aid in foretelling its probable course. I am not aware that these lesions have previously been spoken of. Clinically there is no apparent relationship either in distribution or appearance to the prodromal erythematous rash which is so frequently encountered in the mild forms of the disease.

No. 7 was taken on the third day of the disease, and twenty-four hours before the true eruption appeared. In this negative it may be seen that the prodromal or premonitory eruption has now appeared on the trunk, and is best seen on the back. Its distribution is irregular, and the lesions appear from the negative to stand out very prominently. With the naked eye, however, they might be readily overlooked, unless the observer's attention had been previously called to them,

and careful inspection made in a strong light. On the morning of the fourth day the usual exanthem appeared in a confluent form. Two days later, on the sixth day of the disease, the lesions were so thickly studded that it was difficult to find an area of normal skin sufficiently large to insert a hypodermic needle in administering the normal salt solution. The patient died early on the seventh day of the eruption.

No. 8 represents an infant six weeks old attacked with smallpox. The eruption is confluent on the face and scalp, and semi-confluent on the trunk and extremities. I was asked to see this as an unusual case of eczema. It may be said that the lesions on the face, the only part not covered with the clothing, presented one continuous blister. Upon removing the clothing, however, which had not been done on account of the great illness of the patient, the nature of the disease readily became apparent. This emphasises the importance of examining the whole cutaneous surface in a generalised eruption before making a diagnosis. Although the prognosis in children is extremely grave, this patient made an uneventful recovery. So far as the mucous membranes of the mouth are concerned, they resemble those met with upon the skin, excepting that the walls of the pustules are more delicate and are often ruptured in the process of taking food. The cause of death in infants at the breast, as illustrated in this plate, is usually due to their inability to nurse, which, added to the depressing effect of the virus, renders a grave prognosis inevitable.

No. 9 represents variola in the negro. In the United States smallpox among negroes is a very serious problem for the health authorities to solve. This I believe is not due to any especial susceptibility on the part of the African to the smallpox virus, but to the fact that they are usually ignorant of ordinary sanitary measures, are uncleanly, and, most of all, many fail to immune themselves by vaccination. In fact, negroes as a race are anti-vaccinationists not from any special reason that I have been able to discover, but because they are heedless and loath to subject themselves to the temporary inconvenience of a sore arm. Again, the early recognition of smallpox in the negro is often fraught with difficulty: first, because the disease is seldom seen by the physician until considerable headway has been made; and second, because the dark skin of the negro renders the recognition of all cutaneous lesions difficult. What is red in the white

race often appears in the negro as whitish, as may be seen from the cut.

No. 10 shows a severe form of the disease at its height, *i. e.* on the eighth day. The patient, a negress, was well advanced in pregnancy. When I saw her she was very ill and apparently suffered great pain. The exanthem in the mouth was abundant. Bloody mucus was coughed up, and oozed from the nostrils and mouth. Death took place three hours after the negative was taken.

This case illustrates a phase of smallpox observed by Sydenham, and by him regarded as of grave diagnostic significance, namely, the subsiding and flattening of the lesions before their full maturation on the eighth day. This great observer noted that when the eruption began to disappear before full term, a fatal result usually ensued. In this case the eruption previous to the fifth day stood out in bold relief, remaining so until the seventh day, when it began to flatten, and instead of taking on a yellowish tint, as is usual, it assumed a whitish blister-like appearance. These changes preceded death by about twenty-four hours. As may be seen, the patient was semi-comatose, the eyes are closed, the nares occluded, bloody mucus is oozing from the nose and mouth, the breathing is difficult and accompanied by mucous *râles*. While taking the negative there was an involuntary expulsion of bloody mucus from the urethral tract. The patient died a few minutes later. I think the prognostic significance of the receding eruption has to a certain extent been lost sight of, at least it has not been given the prominent position in prognosis that I believe it deserves.

No. 11 represents a malignant form of variola known as *corymböse* smallpox. In this negative there are symmetrical clusters of the eruption over the scapulæ, in the axillæ, and in groups on the arms and legs. This case terminated fatally a few hours after the negative was taken on the sixth day of the eruption. In my experience *corymböse* smallpox is always severe and usually fatal. In those cases in which recovery takes place complications are often met with, and convalescence is always slow.

One of the fairly common complications of smallpox is the invasion of the ordinary pus-organisms in the lesions themselves. This is usually manifested by an uplifting of the epidermis at the periphery of the lesion, with an accumulation of a serous fluid within. Clinically

and ætiologically I regard this process as closely related, if not identical with Impetigo bullosa, a form of impetigo first described by a distinguished member of this Society.

No. 12 represents hæmorrhagic smallpox (*variola hæmorrhagica pustulosa*). In this variety an extravasation of blood takes place at the base of the lesion and gradually extends to the periphery. It may further be noted that the hæmorrhagic lesions are best marked on the trunk, although in this case they extended over the whole body. This is in marked contrast to a form I have described elsewhere,* met with only on dependent parts, due to the want of vascular tone—*variola hæmorrhagica secundaria*. In the former, as illustrated in the cut, death usually occurs; while in the latter recovery often takes place.

Of all forms of smallpox the modified type usually denominated "varioid" is the most important from a diagnostic point of view. Other varieties, with the exception of the purpuric, have certain striking characteristic features, while modified variola is one of exceptions, and frequently bears a close resemblance to varicella, which may baffle even skilled diagnosticians. Why epidemics vary so greatly in severity does not readily appear, nor why mild epidemics change into severe or malignant types, as took place in Cleveland during the epidemic of which we speak. In this instance it remained as such for more than two years, when the type changed. At this time the smallpox hospital was empty; within a few weeks more cases were reported, at first severe, and finally malignant cases became more and more prevalent, until during the fourth year it took on the malignant type which characterised the epidemic as it appeared in Boston and New York. The reverse might naturally have been expected, for those unprotected usually first fell victims to infection, and, as has been said, in a severe form, while those partially immuned are the last to succumb. Moreover, the city of Cleveland had well nigh, if not wholly, stamped out the epidemic by means of vaccination when a new mayor was elected. The new reigning chief executive, being an anti-vaccinationist, readily found those who were willing to cater to his opinions. The methods adopted to meet the severe form of the disease were disinfection by means of formaldehyde spray, cleaning of streets, and other measures to improve the general health

* *Acute Infectious Exanthemata*, pp. 52 et seq., 1901. F. A. Davis Co., Publishers, Philadelphia.

of the people. In spite of this the disease spread with alarming rapidity, and the mortality finally attained the height of 20 per cent.

In reviewing the epidemic it is generally accepted that the first or mild form of the disease was eradicated by vaccination, while in the course of a few weeks a new epidemic appeared, this time in a severe form and more highly contagious. Those who had previously escaped the mild form now readily fell victims to the disease. In my opinion, as previously stated, the first was derived from the south, while the severe form was imported from the maritime cities of the east. Again, a vigorous crusade was made against the indifferent methods in vogue; general vaccination was carried out, with the result that within a year the disease, which had claimed its victims by the hundred, was wholly stamped out.

No. 13 represents a form of smallpox as it first appeared in Ohio, Pennsylvania, as well as in some of the western states. In these cases the premonitory symptoms were well-marked, the most constant being severe sickness, often vomiting, pain in the back, aching of the limbs, together with dizziness and high fever. This continued three or four days, when the eruption began. In addition to the symptoms mentioned, there frequently appeared during the stage of invasion an exanthematous or scarlatiniform eruption, usually appearing on the lower surface of the abdomen and the inside of the thighs, from which it sometimes extended to the axillæ and rarely to the back. This premonitory rash left as the true eruption appeared. With the advent of the latter the premonitory symptoms subsided, the appetite returned, together with the strength and the general well-being of the patient, so that much difficulty was experienced in convincing the patient and his family that we had to deal with a highly infectious and dangerous disease. The main features, as shown in the negative, are the clustering of the eruption around the nose and mouth. It is also apparent on the backs of the hands. On the trunk and extremities, parts covered with the clothing, the eruption is discrete—in some instances limited to a dozen or even a smaller number of individual pocks. In modified smallpox the eruption is short-lived, usually maturing on the sixth day or even earlier.

A severer form of this type is often seen in which the eruption is confluent on the face and hands, the parts exposed to the light, and discrete on the other parts of the body. It was the occasional

appearance of this semi-confluent form which rendered it possible to convince even medical men in some communities concerning the real nature of the disease. One other feature may be mentioned in this connection, namely, the appearance of a confluent eruption on parts previously irritated, as on eczematous patches, or when mustard plasters have been applied to the back to relieve pain, while elsewhere the eruption is discrete. In treatment we take advantage of this observation; thus, to prevent pitting on the face, cold compresses should be applied as early as possible to relieve congestion and to prevent the development of pocks. When suppuration takes place, corrosive sublimate (1 to 2000) should be added to the iced water and applied as before. It is well to open the pocks at frequent intervals.

In conclusion, I wish to say a word in regard to the so-called light treatment, or the exclusion of the chemical rays from the hospital ward. The world is not only indebted to England for the means of preventing smallpox, but it was here in England that the exclusion of daylight was first employed in treating the disease. I do not refer so much to John of Gaddesden, who carried red to the æsthetic extreme, as to the exclusion of the actinic rays of the solar spectrum, as carried out by Black in 1867, Waters and Barlow in 1871. Finsen has taken up the subject with scientific precision, and in a recent conversation he expressed the opinion that light, so far as we know, has no influence on the virus of smallpox, its action being confined to the pus formation; that in malignant cases the patient is overwhelmed by the infection, while in the majority of cases death is due to secondary changes, which primarily take place in the skin; these are prevented by the exclusion of the actinic rays. Further, to be effective the exclusion must be complete. In my own experience, it must be confessed the procedure as given by Finsen, *i. e.* that a sensitised photographic plate be placed in the room as a control test, had not been carried out. In the cases in which I have employed the exclusion of the actinic rays I believe favourable results were obtained, although further observation is required on this point. So far as I know, in America the tests made with this method have never been carried out on a large scale, and in the few reported the technique was defective.

Dr. A. J. HARRISON (Bristol) proposed a vote of thanks to Dr. Corlett for his address. He had been familiar with that gentleman's writings, and it had been his privilege to review the *Journal of the American Dermatological Association* for

the Medical and Chirurgical Society, and Dr. Corlett's name was very well known to him through those transactions. He was extremely pleased to see Dr. Corlett himself; he had given a most graphic account of smallpox in various stages, and such an object lesson was very desirable, not only in this country, but in very many other countries. There were many practitioners who had had no experience of smallpox whatever. If all skin affections could be brought forward in the same way as Dr. Corlett had brought this subject, it would be extremely interesting. He thought a time would come when that would be the case, and when perhaps the photographs would be coloured.

Dr. RADCLIFFE-CROCKER seconded the vote of thanks with great pleasure. Dr. Corlett's work was known to many on this side of the Atlantic, and he was known as a most careful observer, so that dermatologists could rely upon the accuracy of the statements he made. Those who had heard the present lecture would agree that such an estimate of him was a correct one. The lecture showed how great was the advantage to be gained by a trained dermatologist studying the exanthemata. It had often happened that many very able physicians, who came into contact with such diseases more often than dermatologists, were at a great disadvantage in the early diagnosis of the conditions because they did not know the various non-specific eruptions which might arise to simulate them. He was sure all present had learned a good deal from Dr. Corlett's excellent demonstration.

The resolution was carried by acclamation.

The PRESIDENT said he trusted Dr. Corlett would accept the resolution, and with it the sincere and cordial thanks on the part of the whole Society for his goodness in coming to the meeting and delivering his valuable discourse. At the same time he congratulated Dr. Corlett upon his own personal immunity from variola, and upon the excellence of the pictures.

Dr. CORLETT acknowledged the vote, and the meeting terminated.

SOCIETY INTELLIGENCE.

DERMATOLOGICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Wednesday, February 10th, 1904, Mr. MALCOLM MORRIS in the chair.

The following cases and specimens were demonstrated:

Dr. H. G. ADAMSON showed a case of *multiple lupus* in a little girl aged 5 years. Scattered singly over the body were several typical lupus nodules. They were distributed as follows:—One on left cheek, one on chest, one on each arm, and one on dorsum of foot, and two on inner surface of left buttock—seven in all. Those on buttock were oval and the size of a small bean; the others were split-pea sized. The lesions had been noticed about two and a half years, and the mother

thought that they had not increased in size since their first appearance. One lesion on the chest had entirely disappeared, leaving merely a pale mark, but no scar. The child had measles about three years ago. There was no other evidence of tuberculous disease, but twelve months ago the patient attended hospital for several months for chronic diarrhoea.

Du Castel has drawn attention to the fact that multiple cutaneous tuberculosis is not infrequently immediately preceded by an attack of measles. The eruption bursts out suddenly, suggesting an infection by the blood-stream from some central focus, such as a tubercular bronchial gland. In the present case there is a wider interval than is usual between the attack of measles and the outbreak of the lupus. The eruption may remain unchanged for years, or some of the nodules may spontaneously disappear with or without subsequent scar, while others may enlarge into extensive patches. In a case shown at this Society by the exhibitor, of *multiple lupus verrucosus* in a boy, the whole of the lesions disappeared entirely, although the child subsequently developed other tuberculous lesions, viz. a post-pharyngeal abscess and hip disease (*British Journal of Dermatology*, vol. xi, p. 20).

Dr. S. E. DORE showed the following cases, seen by him at the Middlesex Hospital during Dr. Pringle's absence :

1. A woman, aged 30 years, suffering from a *circinate and annular erythematous eruption of the face*. On the right cheek there was a large ringed patch with a bright red, raised, sinuous border. There was also a small oval patch with a similar oedematous margin and pale centre on the right side of the chin. The left side of the face was similarly affected, but the rings were broken up into crescentic figures and segments of circles. The eruption was stated to have recurred every winter for seven years, and the patient had been shown at the Society six years ago by Dr. Cavafy. The lesions were always much the same in character, but varied slightly in their position on the face. They lasted each year for about six months—from September to March. In addition to the erythema there was a large hard swelling of doubtful nature in the parotid and zygomatic regions of the left side and a smaller tumour in the right parotid region. The patient gave a history of pains in the joints and rest of the body, which had preceded the primary onset of the disease and recurred from time to

time. Otherwise she had good health. In appearance the eruption resembled that of *Erythema multiforme*, but the persistence of the lesions suggested the diagnosis of *Lupus erythematosus*. There was no atrophy of the skin, but it was thought by some of the members present that this would probably ensue, and that the condition might be regarded as a preliminary stage of *Lupus erythematosus* or an intermediate one between *Erythema multiforme* and erythematous lupus.

2. A man aged 65, with an eruption which in some respects resembled *Lupus vulgaris*, in others *Lupus erythematosus*. The whole of the skin of the face below the eyes was of a dull red colour, scaly, and thickened. The greater part of the left side of the neck and part of the right side were similarly affected, and both ears were involved. Anteriorly the eruption extended on to the upper part of the sternum, ending in an irregular border, which in this part could be seen to be made up of small brownish-yellow papules or nodules. In the supra-orbital and lower frontal regions there was a narrow band of healthy skin extending across the forehead. Above this were two large brownish-red patches in the upper frontal region, and another in the occipital region. There were two oval-shaped areas of diseased skin on the extensor surface of the right forearm just below the elbow-joint, with a patch on the flexor surface. On the left forearm there was a single patch on the extensor aspect. Other patches were situated on the flexor surfaces of the thighs, and in the lumbar and right scapular regions. Several of the latter showed scarring, and closely resembled *Lupus vulgaris*, but on the face and scalp the eruption was more like *Lupus erythematosus*. In all parts the redness and apparent infiltration were almost entirely obliterated by pressure. It was pointed out that the condition of the right wrist-joint, which presented marked swelling and deformity without muscular atrophy, and had been diagnosed as osteo-arthritis, was also compatible with tuberculosis. A history of "lumps in the neck which used to gather and break" during childhood, was further evidence in favour of *Lupus vulgaris*. The case corresponded to the type described by Leloir as *Lupus erythematoïdes*, and a microscopical examination was considered necessary before a firm diagnosis could be made.

3. A case of *leucoderma* in a man, aged 20 years. There was a large patch of white hair on the scalp in the occipital region, and a

second smaller patch in the left parietal region. The axillary and pubic hair was also white, and the hair on the sternum was becoming silvered. The skin of the forearms was abnormally pale, but there was little, if any, accompanying increase of pigment, and the process appeared to have ceased in these parts. The duration of the disease was two years, the scalp and arms having been attacked simultaneously. The patient suffered with severe and persistent headaches, and previous to the onset of his complaint had been subjected to a good deal of worry and anxiety consequent upon the death of a relation.

Mr. WILLMOTT EVANS showed a man aged 34 years, who was suffering from *chronic erysipelas* of the face. Two years ago, while he was in South Africa in the army, the lower lid of the left eye began to swell and became red. The redness slowly extended to the bridge of the nose and to the right lower eyelid. He was first seen about three months ago in the out-patient department of the Royal Free Hospital, and at that time both lower eyelids were distinctly swollen, and they were connected by a band of red and swollen skin passing across the bony portion of the nose. More recently the redness and the swelling had extended upwards into the forehead. The margin is fairly well-defined, and the swelling appeared to be entirely due to a thickening of the skin itself. There was a little oedema. The patient complained of a feeling of tightness and discomfort, and he said that the swollen lids to some extent prevented his seeing well. There was no evidence of any other disease in the body; there was no albumen in the urine. It was thought that probably the condition was due to some sepsis spreading from the nasal cavity, though there was no evidence of any disease of the nose.

Dr. COLCOTT FOX exhibited a non-commissioned officer in the Guards with a disseminated eruption of nodules on the face. The eruption was sparsely distributed over the whole face, with one lesion on the rim of the right ear. It was of three months' duration. The eruption was composed of somewhat acuminate acneiform nodules without suppuration and without crusts. A notable feature was the presence of an "apple-jelly"-like deposit deep in the cutis, which was specially in evidence on pressure by the diascope. This character was very similar to that of a lupus nodule. He suggested the diagnosis of *tuberculide*, and proposed to report on the histological features at a later date.

Dr. W. T. FREEMAN showed a man, aged 42, suffering from a papulo-tubercular eruption of forehead, nose, lips, and face. Incision of any of the papules or tubercles produced no pus or signs of any other exudation. The eruption extended to the back of the neck, and here was of a more lumpy character from many of the tubercles having coalesced. A similar kind of eruption was found on the penis and scrotum, but it was absent from the trunk and limbs. The foreskin was of a peculiar blue colour, and felt almost cartilaginous. The rash on the penis and scrotum had existed for at least fifteen years. The condition of the nose and face had existed for at least five years, and commenced as a spot on the right cheek. The general appearance of the face and forehead was that of Leontiasis. His voice was hoarse, and there was thickening of the vocal cords and the aryteno-epiglottidean region. There was a peculiar fetor in his breath. He denied ever having had syphilis, but in 1900 was seen by Mr. Jonathan Hutchinson, who diagnosed the case as a tubercular syphilide. At this time the condition of the penis and scrotum was overlooked, but had been present, according to the patient's statements, even then for more than ten years. Nowhere, except possibly on the skin of the penis, was there evidence of past or present ulceration. He had healthy children, one son being eighteen years old. Antisyphilitic treatment was carried out three years ago irregularly for some months, but evidently with no good results. He was a railway clerk, and has never been abroad.

No member of the Society expressed a positive diagnosis.

The case will undergo further investigation and treatment.

Dr. GRAHAM LITTLE showed—1. A case of *sycosis* treated with therapeutic inoculations of staphylococcus vaccine by Dr. Wright, Lecturer on Pathology at St. Mary's Hospital, to whom he was indebted for the following notes. The patient was a labourer aged 40, the father of a large family. As a child he suffered from severe pustular eczema, and from deep-seated suppuration behind the ear, which continued for years and left very deep scars. The patient had also suffered from time to time from boils and from a discharge from the ears. Five months ago his head became very scurfy and the inflammation passed down from the head to the parotid region, and finally to the beard and to the whole hairy surface of the face and chin. The patient was

under treatment in the skin department of St. Mary's Hospital, at first with local antiseptic measures and then with X-rays, but without any improvement. There was severe and extensive pustular sycosis, each hair of the beard being surrounded by pus, while there was considerable induration and furuncular inflammation below the angle of the jaw, of the whole anterior surface of the neck. The patient's phagocytic reaction at this time was 0.48, taking one as the index of normal blood. On November 2nd, cultures from his pustules having given pure growth of *Staphylococcus aureus*, the patient was inoculated with a quantum of sterilised staphylococcus stock culture which contained 2500 millions of staphylococci.

November 9th.—The patient is much better as regards general health; the sycosis enormously improved, and he is free from pain. The phagocytic index was 0.8. Cultures taken from the remaining pustules yielded pure growths of *Staphylococcus aureus*. The patient was again inoculated with a quantum of staphylococcus culture containing 5000 millions of staphylococci.

16th.—Improvement continues, there being now very few pustules. Acute weeping eczema has, however, supervened over the whole region of the head. This was treated in the skin department with carbolic oil. The phagocytic index was 1.21.

19th.—Improvement still continuous as far as pustulation is concerned. The patient still suffered from weeping eczema of the whole region of the scalp. The phagocytic index was 1.13. The patient was re-inoculated with a quantum of staphylococcus culture derived from his own pustules, the quantum inoculated corresponding to 5000 millions of staphylococci.

26th.—The pustules on the face, head, and arms have completely disappeared, and the eczematous condition is nearly well, but a good deal of redness persists about the skin and cheeks, and the epidermis is everywhere scaling off. Phagocytic index 2.1.

30th.—A few trifling pustules on the face, but much less general congestion. Phagocytic index 1.92.

December 8th.—The patient is now almost well, with the exception of a few superficial pustules. Phagocytic index 2.7. The patient was again inoculated with a further quantity of his own staphylococcus (7500 millions).

14th.—The patient is practically well. Phagocytic index 2.92.

17th.—The patient is to resume work. Phagocytic index 1.85.

January 1st, 1904.—The patient has been back to work, but he has been drinking heavily during the Christmas holiday, and has an exacerbation of his eczema, but there is no pustulation anywhere.

2. A case of *persistent pigmentation*, with possibly concurrent depigmentation, affecting the arms and forearms in a medical man, aged 70, who dated the pigmentary change from a severe attack of confluent smallpox more than forty years ago. The effect of the combined process is to produce a fenestrated macular eruption very like the pigmentary syphilide of the neck. Disorders of pigmentation are not infrequent after smallpox, but they are more usually temporary, and their persistence for so many years is perhaps worth recording. It is of interest also to note that this gentleman shows other pigmentary changes, being the subject of very numerous, flat, brown warts on the trunk. He has resided in Antigua since early manhood, and states that these pigmented warts are common in that island in his own experience.

3. A case of very generalised *tubercular disease of the skin* and also of bone in a woman with the following history, who had lately been treated with injections of tuberculin of Koch (T. R.) with remarkably favourable result. The patient was a delicate-looking woman aged 31. The first tubercular manifestation, which was at the age of fourteen, was enlarged glands in the neck, which suppurated, and the skin in the neighbourhood became affected with lupus. She had the glands scraped at Guy's Hospital, and the phalanges of the right little finger were removed at the same time, being also tubercular. Three years later she was treated at King's College Hospital with injections of the old tuberculin, receiving altogether 150 of these. Under this treatment she lost weight, the hair fell out, and she became very ill, finally having an attack of "pneumonia." The effect on the diseased patches was that they became inflamed, but did not suppurate. One of the small bones of the hand sloughed out at this time. Four years later she was treated at University College for two years with salicylic-acid-collodion paint. There was no improvement, and fresh patches made their appearance on the arm. The glands in the neck were again scraped. For three years after this date she had no treatment, and the condition remained unchanged. In 1900 she attended the London Hospital, and had the "light treatment" for eighteen months.

The skin of the face and neck improved greatly, but the disease in the bones became worse, and the left arm was amputated for tubercular disease some months later at St. Mary's Hospital. In October, 1903, she came to the skin department of this hospital. Her condition was as follows:—She had patches of lupus on the lower part of the neck, the face, the shoulder, the breast, while there was a sinus from the sternum and another from the amputation stump, surrounded by lupus. She was treated with X-rays and internal administration of cod-liver oil until December 10th, when she commenced the treatment with injections of tuberculin, these being given by Dr. Wright. She had received in all six injections in the past two months, at intervals of about ten days, the agglutinative action of the patient's serum on an emulsion of tubercle bacilli being carefully recorded at each sitting. She had put on weight, the patches of lupus had improved enormously, the sinuses had practically dried up, and she felt generally better.

4. A section of skin, preserved in spirit, of a growth on the arm of a woman aged 40. She gave a history of the development of a pigmented patch on the forearm near the wrist which had slowly increased in size for the last ten years. It was not congenital, but had apparently begun to show itself ten years ago. Upon the middle of this pigmented patch four months ago a warty excrescence had come and grown rapidly until, when seen, it had reached an elevation of half an inch, forming a flower-like expansion three quarters of an inch in diameter, attached to the skin by a stalk about a quarter of an inch across. The tumour bled freely on the slightest friction, but was not tender. The surrounding pigmented patch was about one and a half by two and a half inches in size, and of a light brown colour. The whole pigmented patch with the tumour attached was excised, and was now shown in two halves, the centre having served for the preparation of microscopical sections. (Shown at the meeting.)

Dr. RADCLIFFE-CROCKER showed a case of multiple *Lupus vulgaris* in a man aged 22. The patient had not been seen by the exhibitor for twelve years, at which time he had fifty finger-nail sized patches in various parts of the body. Some of these had disappeared, leaving a sound superficial scar, but on both sides of the face, neck, and bend of the forearm there were patches of large area, brownish

red and flat, while one on the right arm was ulcerating. On the scalp in the right parietal region was a patch two inches square, of which there was no record in 1892, but it might have been very small and overlooked.

Dr. SEQUEIRA showed a little girl, aged 9 years, suffering from *Epidermolysis bullosa hereditaria* with milium. There were five other children in the family, and neither they nor the parents showed any evidence of the disease.

Blebs appeared on the fingers within a few days of birth, but for two or three years the child was quite free. At intervals bullæ had appeared on the fingers, wrists, ankles, and knees. When shown at the meeting there were large bullæ over each internal malleolus, and milium patches on the knuckles of the fingers and thumbs and between the fingers on the dorsal aspect, and on the joints of the knees.

One great toe-nail and one thumb-nail were deformed. The child was otherwise in good health, but had never been robust.

Dr. WHITFIELD showed a patient suffering from *Dermatitis herpetiformis*. The patient was a woman aged 19, who had been married for some months and was in the third month of her first pregnancy. The eruption had started on the arms a little before Christmas, 1903, and had spread gradually from there up to her face, while for the last three weeks the rash had been coming out much more severely over all the parts affected. There was no history of any previous bullous or erythematous eruption. When first seen the extensor surfaces of both arms from the wrists to the elbows were covered with a gyrate erythema, in which the centres of the patches were flat and of a light bluish-pink tint, while the borders were steeply raised, œdematous, and of a bright scarlet colour. In many instances this edge, instead of being merely œdematous, showed the formation of marked herpetiform vesicles, so that the eruption became a central disc of bluish-pink surrounded by a bright red edge surmounted by vesicles. This gave an appearance strongly suggestive of one of the vesicating types of Erythema multiforme, an idea to which the location, chiefly on the extensor surfaces of the arms, lent support. There were also a few lesions of similar type, but not forming large areas on the backs of the hands and the thighs. The face showed a good deal of ordinary

acne, and in addition to this some scattered vesicular lesions situated a good depth below the surface and showing no special grouping. The trunk was practically free, and the mouth and conjunctivæ were quite untouched. The tongue was rather heavily coated with a thick white fur. The eruption gave rise to severe itching, especially at night, and the legs, where the eruption was less marked than on the arms, were the seat of the greatest pruritus. Inquiry into the general condition of the health led to nothing of importance, pains and aching of the joints being totally absent. When shown to the Society a slight change had taken place in the character of the lesions, the erythematous part having largely faded and given place to a much more marked vesicle formation, the distribution remaining the same. The exhibitor commented on the case from one or two points of view. He said that he thought with a seven weeks' history it was almost impossible to diagnose such an eruption from one of acute Erythema multiforme, and the distribution, early erythema, and furred tongue of the patient were somewhat in favour of the latter. On the other hand, the herpetiform groups of vesicles, the violent itching with absence of burning, and above all the fact of the patient's pregnancy were factors which led him to very strongly suspect the presence of Dermatitis herpetiformis, and he therefore showed the case under *this* name. An examination of the blood when first seen had revealed a moderate leucocytosis, 12,000 per c.mm., of which 3 per cent. were eosinophiles. This gave about 360 per c.mm., which might be termed a very slight eosinophilia. Lastly, he thought that the case was, as regards its lesions, a very classical herpetiform dermatitis, and one which in no way could be grouped under the heading of pemphigus.

Mr. MALCOLM MORRIS commented on the extremely early appearance of the rash if due to the pregnancy; most of his cases had begun in the third or fourth month.

Dr. COLCOTT FOX said that he thought the case would very likely turn out to be one of Dermatitis herpetiformis, but he agreed with the exhibitor that the localisation was peculiar, and that it was impossible to tell from seeing the case once whether it was Erythema multiforme or Dermatitis herpetiformis.

Dr. RADCLIFFE-CROCKER said that he had seen cases due to pregnancy come on as early as this, and he considered that it was possible to give a definite diagnosis of Dermatitis herpetiformis in this case.

THE DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

A MEETING of this Society was held on Wednesday, January 27th, 1904, Dr. STOWERS in the chair.

The following cases were exhibited :

Dr. GRAHAM LITTLE showed a case of multiple deep abscesses in a male child aged 10 years, which he regarded as being of the nature of *tubercular gummata*. The epidermis was intact, and the skin but little reddened over the nodules, which were situated in the subcutaneous tissue. On puncture of these a surprising quantity of thick pus was evacuated. The lesions were confined to the lower limbs and buttocks, positions in which the tuberculides are more usually found. The child had had these swellings for two to three months. In other respects he did not appear tubercular in any way, and there was no convincing family history. Films had been prepared from the pus obtained on opening some of the abscesses, but no organisms besides staphylococci had been found.

The PRESIDENT inquired if there was a history of tuberculosis or antecedent chicken-pox.

Dr. EDDOWES considered it a case of furunculosis.

Mr. SPENCER HURLBUTT also thought the condition due to staphylococcic infection.

Dr. GRAHAM LITTLE, in reply, contended that the course and duration of the disease made this diagnosis improbable.

Mr. HARTIGAN, in showing a series of *cases treated by radium*, remarked that he was not aware of cases similarly treated having before been exhibited at any of the London medical societies. The subject was one that was much talked of, but he ventured to say it was at present purely in the experimental stage, and this being so, it occurred to him, when compiling the Report of the Light Department of Blackfriars Hospital for last year, to submit the cases for the criticisms of members, and to invite suggestions. He did not propose to deal with the physical and chemical properties of radium. The sample used by him was a bromide weighing ten milligrammes, and he was assured that it was of the highest radio-activity. It was contained in an excavation at the end of a vulcanite screw, and covered with a mica plate, which in its turn was secured by a brass cap

having a window in it. It fitted into an outer vulcanite case, admitting of the screw being withdrawn or projected.

The cases exhibited were—(1) *Rodent ulcer* in a male aged 52, of seven years' duration, situated on the left cheek near the inner canthus. It had resisted a three months' course of Finsen light and X-ray treatment. Since November 13th last it had had eleven applications of radium of from ten to fifteen minutes each, and with the result seen, that it has completely healed.

(2) *Rodent ulcer* in a male aged 41, of ten months' duration, situated on side of nose, it having been previously treated with X-rays with no improvement. He received nine applications of radium, each of ten minutes' duration, beginning on November 13th. There was a marked reaction on November 26th, when the treatment was suspended, and by December 28th it had completely healed and has remained so.

In commenting upon this case, Dr. STAINER said the ulcer was not yet healed, and improvement to the same extent was often obtained by X-rays without further progress towards recovery taking place by continued treatment.

Dr. EDDOWES remarked that in its present condition the ulcer looked like a syphilitic lesion, and, as there was a history of syphilis, he suggested that a mercurial ointment should be applied.

(3) *Rodent ulcer* in a male aged 95, of thirteen years' duration, and situated on right cheek, involving the inner canthus. It had been treated with caustics. He received in all thirteen applications, each of five minutes' duration, beginning on November 14th, and by the end of December it also had completely healed, and remains so.

(4) *Lupus* in a boy aged 13, of several years' duration, and situated on the inner side of the right thigh. The case was interesting, as showing the reaction following a few applications of ten minutes each of the radium, about three in all, to the lower portion of the patch. In connection with this, Mr. Hartigan related an experience he had had through carrying the radium in his waistcoat pocket during the afternoon for a week. It was felt that due precautions were taken in withdrawing the radium within the outer vulcanite sheath and directing the open end away from the body. That it was not sufficient protection was shown by a severe dermatitis occurring in about ten days, and not reaching its height for some days

afterwards (photograph shown). As the dermatitis was subsiding a neuritis set in in the corresponding nerve on the opposite side, and during its continuance an erythema was occasionally to be seen. He would not say he attributed the neuritis to the radium burn, but the fact was sufficiently interesting to be recorded.

(5) *Lupus* in a girl aged 16, of many years' standing, involving for the past six months the tip and right side of nose, the left cornea and conjunctiva. The nose was very nodular and ulcerated, the ala being partly destroyed, and perforation of the eye imminent. Under X-rays the latter speedily healed, but the nose remained unaffected. Since November 16th the right side of the nose has been treated by radium, receiving three applications weekly, each of ten minutes' duration, and has rapidly improved. The ulceration has been arrested, the nodules have almost disappeared, and the surface is now covered with epithelium. Comparing this with the tip of the nose, which is still being treated by X-rays only and remains stationary, a marked contrast will be noticed.

(6) *Lupus* in a female aged 24, of nearly twelve months' duration, involving the tip and ala of nose, which had been treated by X-rays for three months to no purpose, though the right side is now improving. The left side, which was the worst, received in all twenty-three applications of radium and rapidly improved. The nodules and ulcers disappeared, and it now compares most favourably with the right side. It will be noticed, too, that the erythematous area on the left side is studded over with whitish patches.

(7) *Lupus* in a female aged 32, of fifteen years' duration, involving part of the forehead, the whole of the face, and upper part of the neck. It had been operated on thirty-two times under anæsthetics. It was a deep-seated case, and had been under continuous treatment for the past two years, receiving innumerable applications of Finsen light and X-rays. The area in the vicinity of the inner end of the right eyebrow has been subjected to fifteen applications of radium, each of ten minutes' duration, and there can be no doubt as to the effect produced on comparing it with the contiguous untreated parts, the raised indurated edges having subsided.

(8) *Nævus*, or "port-wine stain," in a female aged 26. It had existed from birth, having since then extended somewhat. It was situated on the left cheek, extending from the eyelid to the upper lip

and on to the nose. The upper half received in all eight applications and the lower three applications, each of ten minutes' duration, and invariably after two or three applications a smart reaction followed, with vesication and the subsequent formation of scars, which are now apparent as distinct white areas.

The PRESIDENT expressed the appreciation of the Society to Mr. Hartigan for having brought so many interesting cases under radium treatment, and considered the results already obtained as very encouraging.

Mr. PERNET stated that radium had been in use at the University College Hospital since October last, and quoted a case of *Mycosis fungoides* where a nodule of the size of a pea disappeared entirely under the influence of radium.

Several members thought that the rodent-ulcer cases might be more correctly described as "greatly improved" rather than as "completely healed."

In reference to the reaction in the cases just presented to them, Dr. BOWLES remarked that as far as appearance went the reaction was precisely similar to those so often seen from light reflected from snow, so-called sunburn, and from various irritants, organic and inorganic, to which Dr. Bowles had drawn attention in his paper on "*The Influence of Light on the Skin*" (*British Journal of Dermatology*, No, 105, vol. ix), as well as to various transformations of energy observed in heat, light, electricity, and other of the imponderable forces of nature. Radium seemed to him to act as a transformer of energy, perhaps by absorbing energy in the form of a light which might be darkness to their vision, and then by transforming and radiating that energy which was found to possess properties peculiar to itself. It did not seem to Dr. Bowles to be contrary to those laws of physics with which they were already acquainted, nor more wonderful than the absorption of magnetism by steel when the steel acquired properties entirely apart from those it had previously possessed.

It was of course the duty of physicians to watch all discoveries in physics, and if possible to investigate them biologically, to see if they could in any way be applied in advancing the welfare of man; but it was equally their duty to guard the unthinking and ignorant against meddling with agencies of which they did not know the true value, and so prevent those sad calamities which they had all seen to arise from the reckless use of the Röntgen rays and other forms of electricity. Whether the local nutritional changes produced in man by radium and other substances were produced by vital changes with cell-production or by chemical changes and toxins with cell-destruction time and experience alone could tell.

Mr. SPENCER HURLBUTT showed a case of *Lichen planus*. The patient, a lady aged 32, stated that the disease first appeared in March last over the right scapula, on the site of a bruise after a trifling accident; it remained limited to this part until August, when, following an insect bite, some small spots were noticed on the right wrist, since which time the eruption has been frequently coming out in crops on different parts of her skin.

The disease is now extensively distributed over the trunk and extremities. On the former the parts chiefly affected are the back of neck and shoulders, where the lesions are mostly discrete or grouped into small roundish patches up to the size of a florin; and over the sacral region, where both buttocks are involved in one sheet of infiltrations, which extends on either side down the outer surface of the thighs. Numerous patches of various sizes, and for the most part symmetrical, appear on the thighs and legs. Similar patches are to be seen on the upper extremities, and on the flexor surface of the forearms several characteristic papules of recent origin. The face and palms and soles are not attacked. The buccal mucous membrane shows on each side a milky white streak at the level of the meeting of the teeth. Itching has not been a prominent symptom, but the patient complains severely of the feeling of soreness, which prevents her having proper rest at night.

Mr. GEORGE PERNET again brought forward the case of *disseminated Lupus erythematosus* previously shown at the October Meeting of the Society, 1903,* as some members had then expressed the opinion that the eruption was Lichen planus. The involuting lesions on the arms were, however, undoubtedly Lupus erythematosus, showing central atrophy and a reddened border. There had also been a fresh outbreak of Lupus erythematosus lesions about the face and backs of the fingers since the young woman was last seen by the Society.

Dr. RUTHERFORD showed (1) a man, aged 26, with the following peculiar *polymorphous syphilodermata*:—1, a red, lobulated, circular, non-ulcerating, frambœsioid tumour about the size of a two-shilling piece, raised a quarter of an inch above the surface, situated over the lower end of the sternum, and simulating Mycosis fungoides; 2, a few pea-sized, reddish nodules below the nipple; 3, an orange-sized tumour in the fold of the right elbow, with a medium furrow across it; 4, four or five flat, raised, copper-coloured lesions on the limbs, one quarter of an inch in diameter; 5, a papulo squamous eruption on the right arm; 6, several subcutaneous tumours (gummata) the size of a walnut, freely movable, in the forearms, flanks, and thighs; 7, a circular ulcer the size of a five-shilling piece on the right calf; 8, enlarged glands in neck and

* *Brit. Journ. of Derm.*, vol. xv, 1903, p. 459.

groin. The duration of 1 and 3 about three years, and the other lesions several months. The patient says he was treated for syphilis for six weeks seven years ago, when he was in the army, and that he has received no treatment since.

The PRESIDENT remarked on the resemblance of the lesion on the sternum to *Mycosis fungoides*.

Mr. PERNET said the tumours suggested several things at first sight—sarcoma, *Mycosis fungoides d'emblée*, iodide of potassium tumours, and, the one which had not visibly involved the skin yet, a tuberculous gumma; but he did not consider they were syphilitic, although the ulcerated flat circular lesion on one leg was. He referred to an anomalous case he had seen, in which the growths affected one upper limb and were something like one of the smaller tumours in Dr. Rutherford's patient. In that instance they all subsided under 5-grain doses of iodide of potassium three times a day. In Dr. Rutherford's case there should be inquiry as to iodide of potassium having been taken, as that was a likely explanation of the growths. In that case, iodide of potassium, if tried, would make them worse.

(2) A boy, aged 17, with non-irritating, small, flat, red, papular rash, thickly distributed over the limbs, particularly the flexor aspects and the trunk, as well as with white plaques on the mucous membrane of the buccal cavity. The patient states that the rash has lasted for three years, and that he attended a London hospital for the first six months of that time without deriving much benefit.

Some members agreed with Dr. Rutherford that it was probably a case of *Lichen planus*, while others thought that probably the history of the case was at fault, and considered it a *syphiloderma*.

(3) A man, aged 38, with *two perforating ulcers*, one in the sole of each foot, who was suffering from locomotor ataxia, with a history of syphilis twenty years ago.

Mr. A. SHILLITOE showed (1) a case of (?) *iodide eruption*. The patient, aged 41, acquired syphilis last March, for which he was treated with some liquid medicine. Shortly afterwards there developed on the face and neck large, deep red swellings, pustular in places. These persisted in spite of treatment; last October he attended the Lock Hospital, and was an in-patient for three weeks, being treated during his stay with intra-muscular injections of mercury. The sores all cleared up, but have relapsed to the extent seen on resuming the iodide mixture.

(2) A case of a very extensive, general *papular syphilide*. The patient, a man aged 35, exposed himself to possible infection some six months ago. He states that no symptoms appeared until about four weeks ago, when he was attending a hospital for a very painful fissure in ano, and that the eruption appeared within forty-eight hours of taking two doses of some sedative medicine, given to procure sleep and alleviate his pain. When seen at the Lock, a fortnight ago, his face, trunk, and limbs were seen to be covered with a profuse papular eruption; each papule was raised, hemispherical in shape, and of the size of swan-shot. He is now attending Dr. Graham Little's clinic at St. Mary's Hospital. The eruption is considerably altered, and there is no doubt about the syphilitic nature of the case. A papule has developed with the rest of the eruption on the penis. When first seen no trace of a chancre nor any adenitis could be found.

The PRESIDENT exhibited (1) a well-marked case of *Molluscum contagiosum* in the person of a male child aged 4 years. The characteristic tumours, which were numerous upon the face, had existed for upwards of six months. A detailed microscopic examination of these would be made, and the result reported to the Society at a later date.

(2) A male child, aged 6 years, who was affected with a rapidly developing *universal alopecia*, occurring subsequent to an acute febrile attack which lasted several days. The case was regarded as a tropho-neurosis, as distinct from parasitic alopecia, and required general treatment. Already, as the nutrition of the child had improved, some fine lanugo had appeared on the face and scalp.

(3) A coloured drawing of a typical case of *Peliosis rheumatica*, occurring in the person of a married woman of middle age, in whom well-marked articular symptoms had existed for many weeks.

Dr. C. H. THOMPSON showed a woman, aged 65, with a condition of face which he suggested was due to *hypertrophy of the sebaceous glands*. She had scattered over the forehead and sides of the cheeks a number of discrete, yellow discs, varying in size from about one eighth to a quarter of an inch in diameter. None of them were raised, nor were they perceptible to the touch. Those on the forehead were bright yellow in colour, and many of them were depressed; while those on the cheeks, which were of a paler yellow, were level with

the surface of the skin. There was a prominent milium close to the left inner canthus. No other part of the body was affected. The condition caused no inconvenience to the patient, nor did she know of its existence until her attention had been directed to it.

When eleven years old she had had smallpox, but so far as she knew there had been no subsequent pitting. She had lived in the country until she was sixteen, and had been much in the open air, but had never been subject to freckles. She had never had jaundice.

Dr. Thompson considered the case illustrated the condition which was formerly described by Dr. Radcliffe-Crocker as "*Atheroma cutis*," but which he now states has been shown by microscopical examination to be due to overgrowth of the acini of the sebaceous glands. The case exhibited had been seen by Dr. Crocker, who diagnosed it as of this nature, and did not think it was in any way connected with xanthoma.

Mr. HITCHINS, in commenting on the case, said he considered it was allied to xanthoma.

Dr. EDDOWES looked upon it as a case of pitting after smallpox.

Dr. WILFRID WARDE mentioned a case he had where a similar condition following variola existed. He contended that the lesions were due to scarring and not hypertrophy.

Drs. BOWLES, STAINER, and others entered into the discussion of this case.

REVIEWS.

LA PRATIQUE DERMATOLOGIQUE.*

By the publication of the fourth volume of *La Pratique Dermatologique*, the French treatise on Dermatology, the most elaborate work on the subject which has yet been published, is completed, and we offer our thanks and hearty congratulations to the editors, MM. Besnier, Brocq, and Jacquet, on the successful issue of their labours. The principal subjects discussed in this volume are the diseases of the hair, prurigo, psorospermosis, purpura, sclerodermia, seborrhœa, diseases of the sweat-glands, telangiectases, ringworm, tumours of the skin, tuberculosis of the skin, ulcers, urticaria, warts, xanthoma, and zona. It is impossible for us in this review to do more than touch upon a few of these headings, although we should much like to have done greater justice to them, as several of the chapters are more in the nature of up-to-date monographs on the subjects on which they deal than text-book articles.

* *La Pratique Dermatologique*. Vol. iv. Edited by Besnier, Brocq, and Jacquet. Mason and Co., Paris. 40 francs.

The diseases of the hair are minutely described by Bodin. With reference to hypertrichosis, it is interesting to note that Bodin makes the definite statement that electrolysis is the only rational treatment for the condition, in spite of the enthusiasm with which X-rays have been vaunted for the removal of hairs. In describing the technique of electrolysis he quotes largely from Brocq, who is a recognised master in the treatment of skin affections by physical agencies.

In this section the *piedras* are fully discussed, and the fungi are described chiefly in relation to the work of Vuillemin and Juhel Renoy on the subject. Vuillemin regards the fungi of *piedra* as belonging to a peculiar type, which do not produce organs of fructification on cultivation on artificial media, like the ordinary hyphomycetes do, but which reproduce by the division of their filaments. In consequence of this he christened this group of fungi the "athromycetes," and to those of them which surrounded the hair, as in *piedra*, he gave the name of "trichosporum." He described several varieties of trichosporum, such as *T. giganteum*, the fungus of *Piedra* of Colombo, *T. Beigeli*, of *Piedra nostras*, and *T. ovale*.

Porokeratosis (Mibelli) is discussed by Lenglet. We could not help regretting that this misleading name was still retained as a heading in preference to Respighi's title of *Hyperkeratosis eccentrica*, since Mibelli's original idea that the peculiar affection is the result of a hyperkeratosis around the sweat-orifices is not generally admitted, and the disease was described almost simultaneously by both observers. The illustration which accompanies this article is unfortunately both inadequate and vague.

Jacquet contributes a complex article on prurigo, in reading which we were conscious of the difficulty of treating the subject, and we did not feel that the writer had succeeded in simplifying it. After discussing the interesting evolution of prurigo from the time when the term was used in its literal sense of itching, through Willan's application of it to a variety of papular affections, up to Hebra's classical work, he refers at considerable length to the pathogenesis of the lesions and to their relation to urticaria. He adopts a classification which, although it does not pretend to be a natural one, is regarded by him as useful in affording headings under which to tabulate various facts.

He divides the prurigos into three groups: (1) the acute and subacute prurigo of Willan, including the (a) infantile prurigo (*strophulus*), of which a good description is given, and (b) the acute and subacute prurigo of the adult, which lasts several weeks to months, and frequently recurs; (2) chronic prurigo of Hebra, of which he mentions two varieties or degrees, namely, *P. simplex* and *P. ferox*, and the chronic prurigo of Besnier, of which the fundamental symptom is pruritus; and (3) the atypical prurigos, such as the seasonal varieties (summer prurigo of Hutchinson). We must confess that this classification does not seem to us to shed much light on the subject, and we have some difficulty in distinguishing a difference in kind between the subacute prurigo of the adult of Willan and the milder form of the prurigo of Hebra; and we are inclined to regard the prurigo of Hebra, whether *simplex* or *ferox*, as an ordinary adult prurigo, the symptoms of which are accentuated and the condition rendered more chronic and intractable, owing to a state of malnutrition and a loss of power of resistance of the skin of the affected individual.

The article on psoriasis is from the pen of Audry. Illustrating it there is an

excellent reproduction of a "moulage" by Baretta of rupioid psoriasis. In discussing the pathology reference is made to the theory, which we regard as fantastic, of Munro, namely, that the small collections of leucocytes in the psoriatic scales are cold abscesses, and are the primary lesions in psoriasis, and due to a micro-organism.

Audry is also responsible for a long article on seborrhœa and the seborrhœoides. He defines seborrhœa as "an abnormal state of the skin characterised clinically by a diffuse greasy appearance, associated with an intra-follicular retention of the products of the sebaceous glands, and microscopically by an atrophic condition of the overlying epidermis, an increased development of sebaceous glands, and the presence of the follicular "cocoon" of Sabouraud. It corresponds to the "sebaceous flux" of Rayer, the "seborrhagia" of Fuchs, and to the oily seborrhœa of a number of writers. The writer does not agree with Sabouraud that this condition is purely of microbic origin; his chief argument against this being that it occurs usually about puberty, and that infants are relatively exempt from it. He regards it rather as a developmental anomaly, the result of a congenital disposition, which becomes manifest about adolescence, since at that time the glands develop energetically. Nor is he at one with Sabouraud in regarding premature alopecia as a phase of seborrhœa. The regional distribution of seborrhœa is referred to, namely, the nose, the forehead, the periauricular region, the sternal and interscapular regions of the thorax: but the concha of the ears, a common situation for it to occur, as pointed out by Colcott Fox, is not specially referred to. Beside the seborrhœa of puberty and adult life, infantile seborrhœa and seborrhœa of old age are described. The senile seborrhœa may occur in a form identical to that in the adult or as seborrhœic warts, and in infants a temporary steatidrosis may be detected in the classical situations during the first six months.

Under the heading of seborrhœoides Audry includes acne, pityriasis, and the eczematous seborrhœoides (both the ordinary circinate variety and the psoriasiform types), and does not consider that the pathogenic agent of the affections has yet been determined. This article is singularly suggestive, especially the part of it which concerns the seborrhœide, although true oily seborrhœa seems to us to be a much rarer condition than this description would lead us to suppose. The presence of the less-marked condition, which may be described as the "seborrhœic state" of the skin, in association with the so-called seborrhœoides seems to be established, although the underlying cause of it still remains a mystery.

Many of the tropical dermatoses are described by Jeanselme, whose experience in exotic dermatology is unusually great. There is a lucid article by him on *Tinea imbricata*. In his notes on the fungus he makes special reference to Tribondeau's view that the disease is due to an aspergillus. This fungus, first described by Manson, was formerly believed to be a trichophyton, and we will require more definite proof that this is not the case than the finding of a form of aspergillus in the scales, for it is one of the commonest fungi to contaminate the trichophyton.

The endemic ringworms are carefully described in a richly illustrated article by Sabouraud. In it he lays down a practical course of treatment for ringworm of the scalp which is well worth quoting. (1) Shave the scalp; (2) epilate not only the diseased patches, but a zone of 5 mm. around each; (3) three evenings each

week rub thoroughly into the skin tinct. of iodine, 25 grms., and 60 per cent. alcohol, 100 c.c. ; (4) on alternate days rub in the following salve : pyrogallie acid, 1 grm. ; oil of cade, 4 grms ; vaseline, 20 grms. ; and (5) wash each morning with soap and hot water. The rapidity of the cure, according to the writer, depends directly on the degree of follicular inflammation set up by the various applications. Should these fail to produce the requisite degree of inflammation, croton oil is added to the ointment.

The chapter on tuberculosis and the tuberculides is the work of Laffitte, and the second part of it is exceptionally comprehensive.

Under the heading of tuberculides the writer groups the following conditions :— (1) Lichen scrofulosorum ; (2) Folliclis and Acnitis of Barthélemy ; (3) Acne cachecticorum of Hebra ; (4) Acne scrofulosorum of Fox ; (5) certain grouped papulo-pustular lesions described by Thibierge and by Hallopeau ; (6) Lupus erythematosus of Cazenave, Lupus pernio, and diffuse Lupus erythematosus ; (7) certain types of multiple Lupus vulgaris (Darier), in which although the characteristic tubercular histology was present, yet inoculation gave negative results ; (8) Erythema induratum of Bazin ; (9) Angiokeratoma of Mibelli ; (10) Pityriasis rubra of Hebra ; (11) Eczema scrofulosorum ; and (12) certain chilblains and asphyxial conditions of the extremities. The definition of "tuberculide" adopted by the writer in some measure explains this unusual classification. He states that he gives the name of tuberculides to that large group of dermatoses which differ greatly from each other, but have one common and constant characteristic, namely, that they are closely related to tuberculosis. Later on he asserts that a tuberculide can be recognised by the two following characteristics :—(1) it is an eruption present in a subject affected by tubercle bacilli, or suspected to be so ; and (2) the individual lesions do not contain tubercle bacilli, since it is impossible to demonstrate them either histologically or by inoculation. When we considered the definition carefully we were less surprised that the list was so long than that it was so short, for if a tuberculide be an eruption occurring in a tubercular subject in the lesions of which tubercle bacilli cannot be found, almost any form of dermatitis might on occasion be included in this grouping. We could not help feeling that just as the heading of eczema once formed a convenient "dumping ground" in which to place a large variety of dermatoses whose nature was imperfectly determined, so it was now the fashion to similarly utilise the heading of tuberculide. In a contemporary journal we read of the "passing of eczema ;" a list such as the above can but suggest a similar fate for the "tuberculides." It seems to us a pity that in spite of the want of decided evidence that Lupus erythematosus is a disease of tubercular subjects, writers still persist in classing it as such ; and as for angiokeratoma, certain types of chilblains and asphyxia of the extremities, it seems no more reasonable to regard them as tuberculides than if we were to label as such Erythema multiforme, or psoriasis when it occurred in association with internal tuberculosis.

The illustrations, printing, and general character of the volume come up to the high standard of its predecessors. A little more care, however, in the proof-correcting would have repaid itself, especially as regards proper names ; and such a misprint as Chealde on page 31 is not only incorrect, but almost impossible to pronounce ; but, *ubi plura nitent*, it is perhaps unbecoming in us to cavil at minor defects, and we quite recognise the difficulty of avoiding such mistakes in a first edition.

We feel that this sketchy review does but small justice to the volume before us, and it remains for us to again express our great appreciation of the work as a whole, and our recognition of it as one of the standard treatises on the dermatology of the beginning of the twentieth century.

J. M. H. M.

THE SYPHILITIC NATURE AND CURABILITY OF TABES AND OF GENERAL PARALYSIS.*

SYPHILIS has long been recognised as a causal element in tabes and in general paralysis, and although the doctrine of "no syphilis, no general paralysis," is not universally accepted, it is generally admitted that syphilis is the chief ætiological factor in 80 per cent. or more of all cases of general paralysis and of tabes. Leredde supports this opinion, and inclines to the view that syphilis is probably also the cause of the remaining 20 per cent.

Upon the question of the habitually syphilitic origin of tabes and of general paralysis he does not, however, here insist, the aim of the present thesis being to establish the fact that these diseases when occurring in syphilitics are of essentially syphilitic nature, and curable by antisymphilitic remedies. To Fournier is due the credit of having first definitely connected tabes and general paralysis with syphilis, although he failed to recognise that they are curable by antisymphilitic remedies. It was owing to his endeavour to simplify and to bring these diseases into his group of "parasyphilides" that he was led to overlook this fact, although he had himself previously regarded them as curable by mercury. Fournier looked upon tabes and general paralysis as being in some way indirectly the result of syphilis, possibly of toxic origin; but Leredde criticises this view, and although recognising the value of the conception of the group of "parasyphilides" as having helped to draw attention to anomalous forms of syphilitic manifestations, he would now no longer retain the term, believing that the so-called parasyphilides are either of truly syphilitic nature or that they are not of syphilitic origin at all. Nazeotte† and Marie and Guillain‡ have recently published the results of important work upon the anatomico-pathology of tabes. Nazeotte concludes that tabes is the result of a syphilitic meningitis of slow evolution, which determines a radicular neuritis by a process which controls the anatomical disposition of the lymphatic channels. For Marie and Guillain tabes is also a syphilitic alteration of the posterior lymphatic system of the spinal cord. After further reviewing the histology of tabes and of general paralysis, Leredde concludes that one has no right to deny the syphilitic nature of the lesions. The only definite statement that can be made is that their nature is unknown. The proof that they are syphilitic is found in the results of antisymphilitic treatment. The writer then quotes a large number of cases of cure, arrest, or amelioration of these diseases under mercurial treatment. These cases might be interpreted in three ways: (1) they are syphilitic pseudo-general paralysis and syphilitic pseudo-tabes; (2) they are abortive cases or cases

* *The Syphilitic Nature and Curability of Tabes and of General Paralysis*. L. E. LEREDDE. Paris: Naud, 1903. 140 pages.

† *Presse Médicale*, December 10th, 1902, and January 3rd, 1903.

‡ *Bulletin Médical*, No. 5, 1903.

arrested in their development ; (3) they are true general paralysis and true tabes cured by specific treatment. But "pseudo-general paralysis" and "pseudo-tabes" are quite without exact limits, and it is impossible to diagnose them with certainty ; it is easier to regard them as morbid artificial types, *forms de passage*, forms intermediate to different types of cerebro-spinal syphilis. The published cases of cure here quoted by Leredde cannot be attached to them. It is equally impossible to regard them as abortive forms, or even, by reason of the number of cases observed, to admit that they are cases of arrest of development of this disease. One must, then, recognise them as cases of true tabes and general paralysis, and failure to cure in other cases of tabes and general paralysis in syphilitics must be explained by either the too late commencement of the treatment, or by the insufficient treatment of lesions which can in general be considered as rebellious to mercurial treatment in classical doses.

The necessity for early treatment must be readily admitted if one regards, as is justifiable, the eventual degeneration of the nervous elements as the result of some earlier or more active lesion—to be effectual the treatment should be undertaken while the lesions are active and before degeneration has taken place. Symptoms at first curable are followed by fixed incurable symptoms. Mercurials will not, of course, remove symptoms which are the result of actual degeneration of nervous tissue, and one must regard as cured not only those cases in which there has been complete removal of symptoms, but also cases in which there has been amelioration or even arrest of the disease under such treatment. The earlier the treatment is begun, the more complete the removal of symptoms.

It is impossible to diagnose from the symptoms whether the lesions are early or late, so that in no case should there be delay in beginning an efficient mercurial treatment.

For the great majority of cases Leredde recommends injections of the soluble salts, and the benzoate of mercury and the biniodide have proved the most satisfactory forms. In a healthy male adult daily doses of as much as $3\frac{1}{2}$ centigrammes of mercury (8 centigrammes of benzoate of mercury) may be reached and maintained. One may begin with doses of rather less than 4 centigrammes of the benzoate or biniodide, increasing the quantity by $\frac{1}{2}$ to 1 centigramme each day until the maximum is reached. The temperature is to be taken daily, and if raised the injections are suspended for twenty-four hours, and then begun again with doses 1 centigramme less than that which caused the elevation of temperature. The weight must also be watched, and if there is a marked loss after some weeks the treatment must be discontinued until regained. The urine must be examined every two or three days, and treatment suspended if albumen occur. Gastric disturbance can be avoided if the patient be strictly dieted ; and stomatitis will not occur if the teeth are first put into good condition by the dentist, and kept so by careful brushing and washing after each repast, etc.

As to the alleged dangers of mercurial treatment in these cases, Leredde declares that in tabetics it is not dangerous. In general paralytics he admits that very rarely in advanced cases mercurial treatment may lead to aggravation, but such cases ought not to allow one to hesitate to employ it, but rather to act as soon as possible, for in an advanced case of general paralysis there can be no other chance of safety, whatever may be the danger of intervention.

H. G. ADAMSON.

COURS DE DERMATOLOGIE EXOTIQUE.*

DR. JEANSELME has appropriately been entrusted with the task of teaching tropical dermatology to the pupils of the Institute of Colonial Medicine in Paris.

The contents of this instructive volume are his lectures on the subject in this school of colonial medicine, so arranged as to give a review of what is known respecting this department of medicine to those who propose to practise in tropical lands. But at the present day the subject of tropical diseases is not only of interest to those who are going abroad, but on account of the novelty of the problems it presents, and the brilliant results of investigation already obtained, it has excited much interest in those who have no prospect whatever of practising in any other than temperate climates. A sufficient number of patients suffering from various tropical diseases must come under the observation of medical men in large centres of population to make this interest an active one.

Dr. Jeanselme gives a very complete account of the subject so far as is known, and we are glad to perceive that he insists not only upon symptomatology and treatment—subjects of the first importance,—but that he emphasises the importance of anatomical and bacteriological study of tropical skin diseases, a subject that offers so promising a field to future investigators.

The subjects treated in these lectures are the important tropical diseases such as leprosy, syphilis from the point of view of the tropical practitioner, frambœsia, elephantiasis, tropical sores of various character, and the cutaneous mycoses. A number of the less important and little investigated diseases are only alluded to. This is a necessity of the condition of affairs at the present time, and Dr. Jeanselme, in our opinion, is right in devoting the greater part of his space to diseases whose natural history is known, while he stimulates his pupils to investigate those which at the present time are obscure.

We notice with satisfaction the large and recent bibliography which Dr. Jeanselme has appended to his lectures.

The book is well illustrated by photographs of patients, and by reproductions of sketches made by the bedside. Some of the latter are especially instructive. A short final chapter gives an account of the ordinary clinical pathological processes, with which every one who wishes to study dermatology at the present time must become thoroughly familiar.

The lectures bear the impress of Dr. Jeanselme's personal experience. He says, "The pathology, anatomy, and bacteriology of the tropical dermatoses are still in their infancy. I have attempted as far as possible to bring some light to bear on this chaos by making use of material which I have collected during the course of my travels, and which has been sent to me with great kindness by my colleagues of the colonial medical service."

We have great pleasure in welcoming this contribution to tropical dermatology and recommending its perusal to all students of the subject. J. G.

* *Cours de Dermatologie Exotique*. By E. JEANSELME. Edited by M. TRÉ-MOLIÈRES. Paris: Masson & Co., 1904. 8vo, pp. 403. Illustrated. Price 10 francs.

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PLATE I.

TO ILLUSTRATE DR W ALLAN JAMIESON'S CASE OF MYCOSIS FUNGOIDES IN
THE ERYTHRODERMIC STAGE ON ADMISSION, BEFORE TREATMENT BY
X RAYS



PLATE II.

FIG. 1

FIG. 2

PLATE III.

FIG. 1.

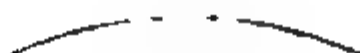


FIG. 2.

PLATE IV.

FIG. 1.



FIG. 2.

THE BRITISH JOURNAL OF DERMATOLOGY.

APRIL, 1904.

THE ERYTHRODERMIC STAGE OF MYCOSIS FUNGOIDES AND THE EFFECT OF THE X-RAYS.

By W. ALLAN JAMIESON, M.D., F.R.C.P.E.,

*Lecturer on Diseases of the Skin, University of Edinburgh ; Physician for Diseases
of the Skin, Edinburgh Royal Infirmary ; and*

LILY H. HUIE (EDINBURGH).

THOUGH a certain number of histological observations of the premycotic stage in Mycosis fungoides have been undertaken, these, according to Wolters,* have been few, and Leredde more recently † remarks, "the study of the ephemeral lesions which occur in the period of commencement has not yet been carried out ; we do not know if the erythemata or the urticarias which pertain to it have a structure peculiar to Mycosis fungoides." As a typical instance of the disease in this period of its history has been for several months under close observation in my wards, there seemed to be an admirable opportunity of advancing our knowledge on this question and at the same time of determining what alterations in the structure of the new growth were effected by the X-rays by comparison of sections made before and after their employment. In this part of the investigation I was again fortunate in having the valuable assistance of Miss Huie.

Mary M—, aged 49, till four years since a domestic servant, now

* *Bibliotheca Medica*, Heft 7, Stuttgart, 1899, p. 50.

† *La Pratique Dermatologique*, tome troisième, Paris, 1902, p. 543.

engaged at home, sent by Dr. J. Wilson Black, Inverness, under whose care she had been for some time. Admitted to Ward 38, October 19th, 1903. There is nothing in her family history bearing on her present condition. As a servant she always had good food and was comfortable. Her habits as to diet were satisfactory. Her previous health has been good. Menstruation was regular without any abnormality till the menopause about a year ago.

The existing disturbance of the skin commenced six years since as two small spots on the thorax near the axillary region. These were pink in colour, not raised above the surface, and very itchy. Other similar spots appeared on various parts of the body. In some cases these areas became much thickened, and then would gradually grow pale and disappear. After the eruption had spread pretty extensively, whitish, firmly attached scales came on the patches, and these did not spontaneously separate. The eruption never wholly faded, but at times became paler and the raised parts flatter. During the last four years blebs from the size of a pea to that of a bean used to appear, and when such burst a whitish serosity exuded, concreting into a crust on the surface. This process lasted from a week to ten days, a blister coming out here and there over different parts and commonly on healthy areas, but never on the face. About a year ago the disease spread to the face, and in course of last spring it encroached on the scalp.

On admission it was observed that she was not well nourished, she looked worn, and her flesh was soft and flabby. Her height was 5 ft. 4 in., her weight 7 st. 4 lbs. The urine was acid, the amount daily being about 53 oz. (Dr. Black noted that it was very scanty while under his care.) Sp. gr. 1015, urea 318 grains, no sugar or albumen. The hair is dark, tinged with grey, considerably thinned on the crown. The scalp is very tense, covered with dry scales, or here and there with hard crusts. The left side of the forehead shows thinning of the skin but no eruption, but on the right the skin is generally thickened, dry, pinkish-red, uneven, and slightly scaly. The sides of the face, chin, and much of the upper part of the trunk exhibit the same reddening and induration. The skin of the nose and flush portions of the cheeks remain pale and smooth. The trunk and limbs present all over ill-defined brick-red patches, inclosing here and there areas of quite normal integument. Besides this redness there are orange-yellow stains, which merge imperceptibly into the brick red. Some

parts are slightly scaly, some are more distinctly rough and crusted, not unlike what is seen in dry eczema. Several of these ooze a little. The inguinal and cervical glands are enlarged in chain form, the axillary are not. The soles are very dry and lined, and flake off in places. The nails are not affected. She complains of great and constant itchiness.

She was ordered a nourishing dietary, small doses of cod-liver oil (Möller's) at night, and a mixture containing phosphoric acid and strychnia. The back was exposed for ten minutes daily to the X-rays at a medium distance of ten inches. An examination of the blood was kindly made by Dr. Lovell Gulland, who reported as follows:—
“There seems to be no special alteration in the number of the whites or reds, but a marked change in the relative proportion of the whites:—

Polymorphs	69·5
Large lymphocytes	11·5
Small „	6·5
Eosinophiles	11·5
Basophiles	1

On October 28th, with her consent, a small square of skin down to the subcutaneous tissue was excised and placed in corrosive. This was removed from the centre of a patch on the outer aspect of the right upper arm, and included a part of a crusted area. Exposures to the X-rays were now extended to the whole body, the duration daily being thirty-five minutes, the surface affected being mapped out into seven areas, and each of these having five minutes, at a distance which varied from ten to six inches. After a week's continuance three superficial burns developed on the back, on and around parts which were crusted, but these soon healed under zinc ichthyol salve muslin and later a calamine lotion containing boric acid. By the end of December the lesions had faded, only leaving here and there some slight pigmentary staining. The epidermis peeled off copiously, and left the surface soft and quite smooth. The hair on the crown fell off, the crusts gradually disappeared, and the scalp became pliant. The patch on the upper arm, whence the piece had been removed for examination, was now only very slightly darker than the skin round it and quite smooth. A second piece, very near the previous one, was cut out, so as to furnish a suitable specimen for comparison. It was observed when excising it that the skin was greatly tougher than on

the former occasion, rendering its removal more difficult. Her health had improved, her weight gone up a little, she ate well and slept soundly. It was considered whether she might shortly return home, when she had a slight attack of influenza, which disturbed the regular course of her temperature, which, except when the reaction occurred, had been fairly steady at a normal level. The influenza weakened her considerably, and when convalescent several fresh patches, moderately itchy, came out on the inner side of the right arm in the neighbourhood of the elbow. These were pinkish-red, well-defined, thickened, and somewhat scaly. A little later a number of similar patches appeared on the lower part of the abdomen, over the crests of the ilia, and on the inner aspect of the upper part of the thighs. All these were regions which had never been directly submitted to the action of the X-rays. Exposures were at once resumed towards the end of January, 1904, and the patches immediately began to fade. By the end of February these had again completely disappeared, and she went home. The hair was reappearing as a fine close down on the denuded portion of the scalp. She felt well, and had entirely lost the careworn look so noticeable on her admission. For some time she had been taking alginoid iron in ten-grain doses thrice a day, and painted her body and limbs with a lotion of lead and boric acid thickened with talc and starch, and containing a little glycerine, as recommended by Boeck, of Christiania, as an anti-pruritic. No trace of the disease now remained, except that the skin where the patches had been, on the abdomen and thighs, was slightly rough. The glandular enlargement was gone. Miss Huie's report on the condition is as follows:

HISTO-PATHOLOGY.

"A piece of skin was removed from the outer side of the arm and sections were cut and stained by a number of methods.

"*Prominent characters* (Fig. 1).—The upper third of the corium is the seat of greatest change. Throughout this region the normal structure has almost entirely disappeared, and it is replaced by a granulomatous tissue. In the deeper parts of the corium also, and even in the uppermost layers of the subcutaneous tissue, this new growth appears in the sections as patches in which dilated blood-vessels are conspicuous. The patches decrease in size with the depth

of their position; this, and the fact that immediately underlying the epidermis there remains a thin border of collagen, suggest that the growth began in the region of the subpapillary plexus of blood-vessels and spread upwards and downwards. But in one or two places the rete Malpighii has thinned away before the advancing granuloma, which is there in contact with the horny layer. The interpapillary processes are only slightly elongated. Fine strands of remaining collagen run up towards them. Below the upper third there is a horizontal belt of almost normal corium tissue, and below this succeed large diseased patches. They are so sharply defined, and the original fibro-elastic substance has so entirely disappeared in them that the corium may be said to be excavated by the new growth, which fills the cavities. In the upper third nothing remains of the normal tissue but a few branching strands. In the lower half the corium is merely rendered cavernous by the new growth; the tunnellings become narrower towards the subcutaneous tissue. Judging by traces, hair-follicles have provided one of the chief lines of encroachment. Remnants of hair-bulbs persist in the lower parts of the corium, but though sections of the entire piece of skin were made not one hair was found. Clusters of quite normal-looking sebaceous gland-cells remain here and there, always densely surrounded and quite isolated by the new growth. The sweat-glands are generally only slightly surrounded by the invading cells. Dilated blood-vessels are conspicuous, as are also others with walls remarkably thickened by endothelial proliferation.

“*Minute details.*—The horny layer is very thin. In places the cells are imperfectly cornified. The granular cells form a single row, here and there disappearing altogether. The prickle-cells are somewhat œdematous. Towards the stratum germinativum the œdema increases, and there is an invasion of the rete by some elongated leucocytes, and also by numbers of small round-cells (lymphocytes), the pioneers of the advancing new growth. These are frequently seen lying in the perinuclear spaces.

“The granuloma itself consists of cells exhibiting great variety of size and shape set in a very delicate intercellular network. Two kinds are prominently noticeable—

“A. Cells of the fixed connective-tissue-cell type—the structural elements of the granuloma.

“B. Round-cells with deeply staining nuclei and very little cell-plasm—some slightly larger than a red blood-corpuscle; most smaller, in no way distinguishable from lymphocytes.

“Of the cells of Type A three varieties may be recognised, representing probably different physiological conditions only, for they shade into each other through intermediate forms. (1) Cells with very large, clear, oval nuclei, containing little nucleoplasm, but a wide-meshed intra-nuclear reticulum, and one—three large nucleoli. The faintly staining cell-plasm is drawn out into fine threads, which lose themselves in the intercellular tracery of the granuloma.

“(2) Smaller cells, resembling structurally those of Variety 1. Galloway and MacLeod call these daughter-cells of Variety 1,* and R. Leith regards them as the ‘characteristic cells’ of the new growth.†

“(3) Cells with nuclei as large as Variety 1, or smaller; but with a much denser intra-nuclear reticulum and more compact and more deeply staining cell-plasm. These cells are very frequently seen in the act of mitotic division. Their connection with the intercellular network is not so obvious as that of Varieties 1 and 2, and in many cases they seem to be quite free from it. In the heart of the diseased areas all the cells of Type A are subject to great polymorphism, and their nuclei become lobed in a characteristic manner. In some microscopic fields the cells are almost all of Type A, a very few of the round-cells being present.

“The latter are most numerous where the granuloma borders on prickle-cell tissue, or in the proximity of large blood-vessels. Mast-cells are not specially numerous, and plasma-cells are extremely rare. There is no infiltration of polynuclear leucocytes in the diseased areas of the corium; but, immediately under the stratum corneum in one place, there is a little cavity in the epidermis occupied by them. Sections were specially stained for bacteria, but none were seen. In the specimen examined the granuloma may be briefly described as consisting of a proliferation of connective-tissue corpuscles, combined with an infiltration of lymphocytes.

“In passing from healthy parts to diseased areas in the study of a

* *Brit. Journ. of Derm.*, 1900.

† “Observations on a Case of Mycosis fungoides,” by W. Allan Jamieson, M.D., etc., and Robert F. C. Leith, M.D., etc., *Edin. Med. Journ.*, 1893.

section it is evident that disintegration of the corium tissues begins by a swelling and proliferation of the connective-tissue corpuscles. In places that appear perfectly healthy, and where the corpuscles are far apart, threads of protoplasmic communication between them are abnormally distinct. Passing to regions that are more obviously under the influence of the disease, it is seen that the bundles of collagen fall apart, leaving large interfascicular spaces and channels. Clinging to the bundles in such numbers as literally to crowd on each other are connective-tissue-cells with enlarged oval nuclei—cells of Type A, Variety 1. Their protoplasm is drawn out at the poles into points united by threads with the sister-cells. This tendency to remain united accounts for the stroma of the granulomatous tissue. In the interfascicular clefts lymphocytes appear, and seem to assist in the dissolution of the collagen. But the impression received by the observer certainly is that the connective-tissue-cells themselves, by their swelling and multiplication, force the bundles apart. Practically no other kinds of cells but these are present at the work of destruction.

“The endothelial cells of the blood-vessels are proliferating in the same way, and have exactly the same appearance as the connective-tissue corpuscles, due to their common developmental origin in the mesoblast and a common inclination at the present time to ‘revert.’ In neither case has a single instance of mitosis been observed. This does not, however, prove that the cells do not divide in this way, for their mitoses may occur at certain favourable diurnal epochs only, governed by the daily periodicity of bodily conditions. When, however, the collagen has disappeared and the typical granulomatous tissue with cells of Type A, 2 and 3, occupies the field, mitotic figures are very numerous. Cells of Variety 3 are multiplying by this way continually. They appear, further, not infrequently to get detached from the stroma and, surrounded by their own compacter protoplasm, lie free in the lymph-spaces and become amoeboid. It is conceivable that such cells spread the infection, but with prolonged observation the impression grows that the disease is a phenomenon of *cell reversion*. In other words, the connective-tissue corpuscles, from some unfavourable condition of their environment, have lost their differentiation, have ceased to be specialised for the production and maintenance of collagen, but have reverted to an embryonic condition in which self-reproduction is the main object of existence.

" Apparently the hosts of lymphocytes exercise a digestive action on the cellular and collagenous *débris*. The Röntgen rays, perhaps merely by acting on the vaso-motor nerves, restore the constitution of the connective-tissue corpuscles, and enable them to resume their hereditary specialisation.

" After the patient had been for two months under X-ray treatment, a piece of skin removed from a spot within an inch of the first biopsy showed the following improvement :

" *Prominent histological changes* (Fig. 2).—1. Disappearance of the granuloma and infiltration.

" 2. Disappearance of œdema and hyperæmia.

" 3. Restoration of the normal corium tissues, both collagen and elastic fibres (Fig. 4).

" *Minute characters*.—1. The horny layer is thicker than usual, friable, and 'peeling.'

" 2. The rest of the epithelium is normal, except for a fine deposit of pigment between the cells of the two lowest layers of the rete Malpighii.

" 3. In the papillary body the number of connective-tissue corpuscles is somewhat larger than normal in proportion to the intercellular substance. The nuclei of these cells are plump and well filled with nucleoplasm, and some fibroblasts were seen. Little clusters of pigment granules are scattered throughout this region.

" 4. The tissues below the papillary body are quite normal.

" 5. The elastic fibres are everywhere well-developed, except in some very restricted parts of the papillary body where the number of cells is greatest. In these places the elastic fibres, where they exist at all, are of extreme tenuity, and sometimes only visible with an oil immersion lens. With these small exceptions the distribution and development of the elastic fibres is absolutely normal, and a comparison of sections stained by acid orcein, of tissues before and after treatment, shows the extent of the restoration that has been accomplished (Figs. 3 and 4)."

So far as my researches enable me to speak, there is not much said about the condition or changes in the elastic fibres in works on Mycosis fungoides. Wolters alone remarks when discussing the premycotic stages, "The greater part of the elastic fibres are compressed together by the masses of cell-accumulations, but remain

united to the deeper layers, and either exhibit no other change, or they have already become absorbed, evidently from the pressure of the infiltration." There is no evidence of any condensation of the elastic fibres or their compression into bundles beneath the cell-infiltration in the sections made by Miss Huie, while in those made after treatment there appears to be an actual new formation. Since the way in which elastic fibres originally arise is still a matter of some uncertainty, it is allowable to express the opinion that the X-rays may have the power of causing their reproduction.

During the time Mary M— was in the ward another case of Mycosis fungoides in the tumour stage was admitted, and her case may be briefly summarised.

Mrs. C—, aged 60, admitted November 10th, 1903. Family history and her own health originally good, but diet poor, containing few vegetables. Ten years since her left thigh became red and inflamed, and was the seat of a burning sensation. There was no itchiness, and the disagreeable feeling was not sufficiently pronounced to prevent her from performing her household duties. This lasted about eighteen months, during which time it gradually became scaly, flaking off as a fine dust. Four years since an eruption broke out over her whole body, beginning on the legs and arms, then extending to the trunk and face. It began as separate red blotches, firm and raised above the surface, which burned but did not itch. The individual spots burst and exuded; this gave relief to the burning, but occasioned smarting. These continued to come out in crops, which constantly succeeded one another. An abrasion or ulcer arose on which a scab formed, and then slow healing set in. When admitted she looked worn and haggard. Her body and face and limbs were studded with vegetative growths, projecting about a quarter of an inch above the surface. Some of these were pinkish, some purplish, and others, again, pale and watery. They were soft, flabby, and spongy, much like œdematous granulations. Some, however, were veritable tumours rising sharply from the surface, and with an aspect like a pale tomato. Sometimes these growths seemed as if they would heal, but no sooner had they in a measure faded and little more than reddish or purplish stains were left, than a new outburst occurred. Blood oozed readily from them if scratched or torn, and they were tender to touch. They appeared on the eyelids, and

one located itself on the right eye, causing its destruction through bursting of the globe. Though on a water-bed, it was not possible to prevent their becoming gangrenous and ulcerating. She had attacks of severe diarrhoea which no astringents availed to check. Latterly great hæmorrhage took place from the bowel, and she died from collapse on February 2nd, 1904. Her state was such that it was impossible to subject her to the X-rays, though this was attempted by removing her on a stretcher to the electrical room. Apparently some subsidence of the growths resulted for a time on the arm exposed as contrasted with that not. The urine contained urates, but neither sugar nor albumen. The temperature throughout did not vary much from normal, except at the last, when it grew irregular, rising and falling a degree above and below the normal line. On post-mortem examination there was found slight hypostatic pneumonia, several large deep ulcers in the colon, with extravasation of blood throughout the substance of the large intestine. The lesions on the skin had almost entirely disappeared.

Though there was no marked itchiness at any stage, the only diagnosis of this case seemed to be Mycosis fungoides. There was no suspicion, far less any evidence of syphilis. A portion of one of the growths was excised during life, and three retro-peritoneal glands from the pelvis near the spine were examined by Miss Huie, who has furnished the appended short account.

NOTE ON PLASMA-CELLS IN THE LYMPHATIC GLANDS IN MYCOSIS FUNGOIDES.

Portions of two tumours from a very advanced case of Mycosis fungoides were examined histologically. The granulomatous tissue was quite typical. Plasma-cells appeared in groups near the large vessels. Twenty-four hours after the death of this case the spleen and three lymphatic glands were removed, and fixed in corrosive sublimate. Sections were stained with Pappenheim's and Unna's methods for plasma-cells. In the spleen the Malpighian corpuscles are greatly reduced. Plasma-cells appear here and there in the splenic pulp. The lymphatic glands contain astonishing multitudes of typical plasma-cells, and the lymph-sinuses are crowded with their "ghosts," rarefied, faintly-staining, much vacuolated both in cell-plasm and nucleus. It would be easy to believe, though one should

not rashly draw conclusions from post-mortem tissues, that the plasma-cells are metamorphosed lymphocytes, for every gradation appears to be present, from lymphocyte to plasma-cell ghost. Thus appearances most certainly indicate that the glands are at once the birthplace and the graveyard of innumerable plasma-cells.

EXPLANATION OF MICRO-PHOTOGRAPHS.

FIG. 1.—Section of skin taken from case of *Mycosis fungoides* before treatment by X-rays, showing the granuloma in the upper half of the corium. $\times 40$ diam. Toluidin blue and eosin stain.

FIG. 2.—Section of skin from same region after two months' treatment by X-rays, showing entire disappearance of granuloma. $\times 40$ diam. Toluidin blue and eosin.

FIG. 3.—Section from the same piece of skin as Fig. 1, showing the effect of the granuloma on the elastic fibres. The extraneous mass adhering to the epidermis is a layer of blood formed at the time of the biopsy, and fixed on by the HgCl_2 . $\times 40$ diam. Tänzer's acid orcein stain.

FIG. 4.—Section from the same piece of skin as Fig. 2, showing restoration of the elastic fibres. The rent in the section is due to a rupture made in the skin at the biopsy. $\times 40$ diam. Tänzer's acid orcein.

FIG. 5.—Cells of the granuloma. $\times 250$ diam. Mann's methyl-blue-eosin (bi-acid stain).

FIG. 6.—Cells of the granuloma invading elastic fibres. $\times 250$ diam. Unna's acid orcein and Unna's methylene blue.

(The micro-photographs are by Mr. Richard Muir of the University of Edinburgh.)

SOCIETY INTELLIGENCE.

DERMATOLOGICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Wednesday, March 9th, 1904, Dr. J. H. ORMEROD in the chair.

The following cases and specimens were demonstrated:

Dr. JAMES GALLOWAY presented an interesting case of *Lichen planus*. The patient was a young woman of about twenty-seven years of age, who had commenced to suffer from the disease in November, 1903, the eruption showing itself first on the lower extremities. Since the time of commencement the eruption had spread diffusely over the whole body, but did not show itself on the

scalp, face, hands and feet, nor in the mucous membranes. The point of interest consisted in the fact that on the legs, where the eruption was first clearly shown, the lesions had run together, forming continuous patches with slight induration and elevation above the surface, and in consequence the diagnosis, if made from the appearance of the legs alone, might readily have been mistaken. In this position the appearance of the disease simulated certain forms of psoriasis rather than Lichen planus. But on more minute examination even of the legs, but especially on inspecting the trunk, the characteristic papules of Lichen planus were readily seen. On the body, in spite of the fact that the skin was almost completely affected, the papules remained distinct, showing very little tendency to form plaques or patches of eruption. On the extremities the tendency to coalesce was marked.

Dr. Galloway compared this patient with another example of the disease, also in a young woman, who consulted him that afternoon at the hospital, with a recurrence of the disease after complete absence for seven years. The recurrence was of the same type as the first attack, and very different from the patient before the Society. In the second case the individual lesions consisted of small groups of eruption which had coalesced and become erythematous and much raised above the surface, presenting a strong superficial resemblance to a large papular or nodular syphilide.

Dr. GALLOWAY also showed for Dr. J. M. H. MacLeod—

1. A case of *Erythema multiforme* in a girl aged 9 years. The eruption was confined to the face, backs of the hands, and right wrist, and consisted of erythematous macules and flat raised lesions, varying in size from that of the diameter of a split pea to that of a shilling, and irregular in outline. Several of the larger lesions on the hands when first seen presented a bluish opaque appearance on the surface, such as is frequently presented by long-standing lesions of Lupus erythematosus in that situation. A few of them had become broken and were covered with crusts. On the face the eruption was most marked on the cheeks, forehead, and on the ears. When the patient was first seen at the Victoria Hospital for Children, three weeks before exhibition, there were present on the cheeks several raised erythematous lesions similar to those on the hands, but at the

time of exhibition these had to a large extent faded to red blotches, and the eruption on the face consisted of erythematous macules, vesicles about the size of a lentil, and variously sized crusts. The rims of both ears were red, scaly, and covered here and there with scabs, but there was no distinct loss of tissue. There were no lesions present in the mucous membrane of the mouth.

The eruption began eight months ago in the situations where it was now located, and had persisted since then; individual lesions had most probably died away and new ones come up during that time, but a definite history of the course of the eruption was not elicited from the patient or the mother. The child seemed otherwise healthy, and came of a healthy stock, and the only internal disorder which was discovered was the presence of threadworms for several years.

The case was brought forward owing to the peculiar chronicity of the eruption and its relation to Lupus erythematosus, both with regard to the appearance of several of the lesions and the regions affected. The fact that there was no atrophy and scarring, and the general character of the majority of the lesions suggested, however, that it was a case of vesicating Erythema multiforme rather than of Lupus erythematosus.

2. A case of *Lichen planus* in a boy aged 2, which was first noticed by the mother eight months before exhibition. The eruption was situated on the knees of the child, and consisted of typical lesions of Lichen planus which had coalesced to form irregular ringed patches around the patellæ.

Dr. GRAHAM LITTLE showed—

1. A case of an anomalous eruption on the skin of the neck of a little girl, aged 13. The exhibitor showed the case tentatively as an example of the condition which had been described by Dr. Radcliffe-Crocker as "hypertrophy of sebaceous glands," but probably no definite diagnosis would be acceptable without histological confirmation of the position in the skin of the lesions. The clinical appearance was that of a number of flat, light cream-coloured patches, the largest being two or three millimetres across, the smallest about one millimetre, very slightly raised from the surrounding skin, and being arranged in lines running from back to front in an axis transverse to the long axis of the neck. Each lesion seemed to have a minute

central depression, and the larger patches conveyed the impression of being lobulated deposits under the skin. There were more than a hundred such lesions on each side of the neck, being thickest over the prominence of the sterno-mastoid muscle, but transverse to its direction. The front and back of the neck were quite clear, and there were no lesions elsewhere. The condition had persisted for about a year, and no antecedent history connected with the eruption could be obtained except that the child had had severe mumps about four years before. There was no diabetes or constitutional disease of any kind. A histological examination would be made shortly.

No member present would offer a firm diagnosis. Xanthoma was suggested by some members, and Xanthoma pseudo-elasticum by others.

2. A case of *multiple sebaceous Cysts* of the scrotum in a man, aged 40, who had had them for the past ten years. There were about twenty or thirty waxy-looking tumours arranged in a bunch-like way on the lower parts of the scrotum, of the size of Barcelona nuts, hard and tense to the touch, quite painless, and causing no inconvenience. A very similar case was depicted in Jacobi's atlas. One of the tumours had been excised for histological investigation. The cross-section of this tumour showed a waxy sebaceous material in the centre.

3. Sections from the case of *Pemphigus vegetans* shown to this Society in December, 1902, by Dr. Ormerod for Sir Dyce Duckworth. The patient had died in St. Bartholomew's Hospital some time after he was shown. The tissue from which the sections had been prepared had been obtained during life. They showed immense infiltration of cells into the corium, these cells being chiefly plasma-cells. A notable feature of the sections was the amount of pigment, deposited chiefly in the papillary zone, but found almost throughout the corium. This pigment did not stain in the manner of iron-containing pigment, and must therefore be pronounced iron-free, and not of hæmatogenous origin. The pigment was not found in the neighbourhood of blood-vessels particularly, and the vessels were not altered appreciably.

Dr. ORMEROD said the histological characters indicating excess of pigment were borne out by the clinical appearances, the man having become deeply pigmented before death.

4. Sections of the case shown by Dr. Freeman at the last meeting

of the Society ; no diagnosis had been arrived at then, although it was thought *Mycosis fungoides* was a possible diagnosis. The sections showed a granulomatous infiltration into the corium very suggestive of syphilis, and Dr. Freeman stated that the condition was rapidly disappearing under the administration of antisyphilitic remedies.

Dr. RADCLIFFE-CROCKER showed a case of *Lupus erythematosus* of the "fixed" variety on the cheeks and nose which had been cured by the Röntgen rays. The rays had been administered by an unqualified practitioner with insufficient protection. A severe burn was the result, which, while it cured the disease, produced a thin atrophic scarring of the whole of the right side of the face and the upper part of the left side, with extremely abundant telangiectatic vessels in pea sized spots where the lupus had been, and left more disfigurement than it removed.

Mr. A. H. WARD showed a case of *Ichthyosis hystrix* by permission of Dr. Wyndham Cottle. The patient was a girl of sixteen, in every way healthy and well developed. She stated that no disease had been noticed till about five months ago, when a pigmented "wart" on the neck was removed by ligature. After this the condition was observed in the right axillary region, down the arm, and round the trunk in the nipple-line as far as the median plane of the body.

On examination the patient presented an irregular area of papillary growths, darkly pigmented, and clumped together into flattened warty prominences in the right axillary region. The condition extended down the inner border of the arm midway to the elbow, and inwards along the lower border of the pectoral muscle to the median line. The appearance was as though an irregular smudge of charcoal had been made upon the skin in these situations. The nipple presented several larger warty growths, not pigmented. On examination with a lens pin-point sized papillæ were seen, closely set, with smooth horny surface, and somewhat translucent. They appeared pigmented to a varying degree.

The opinion of the Society appeared to be that the condition was a congenital one of the nature of the *Nævus unius lateris*, but had not been noticed till extensive growth occurred, possibly connected with the onset of puberty. The removal of the growths by solvents, caustics, or surgical procedure was discussed.

THE DERMATOLOGICAL SOCIETY OF GREAT BRITAIN
AND IRELAND.

A MEETING of this Society was held on Wednesday, February 24th, 1904, Dr. STOWERS in the chair.

The following cases were exhibited :

Mr. SPENCER HURLBUTT showed a *case for diagnosis*. The patient, who had only come under observation quite recently, is a well-proportioned man of twenty years of age; he is accustomed to out-door pursuits, especially rowing, and now wishes to join the yeomanry if the state of his skin will allow of his passing the medical examination.

Some enlargement of the submaxillary glands can be detected; otherwise there seems to be nothing amiss with his general health, and no definite tubercular taint can be traced in his family history.

The rash has existed more or less in its present state as long as he can remember, and causes him no inconvenience beyond slight itching, especially in the spring time of year.

The eruption consists of numerous deep red papules of varying size—the smaller ones acuminate, the larger flattened with adherent scales—distributed over (1) the front and back of trunk down to, but not affecting, the buttocks; (2) the front and inner surface of the arms to the bend of the elbow; and (3) the upper third of the flexor surface of the thighs. On the trunk are also to be seen a few scattered pustules.

The rash as a whole is markedly symmetrical, and is especially copious in the neighbourhood of the axillæ and back of neck, where the lesions show a tendency to follow the lines of cleavage of the skin of the part.

The PRESIDENT thought it a case of *Lichen circumscriptus*.

Mr. HITCHINS had no doubt that it was a papular seborrhœa.

Dr. STAINER expressed a doubt as to the correctness of the patient's account of the eruption, and considered it a form of seasonal prurigo.

Dr. SAVILL was inclined to look upon it as a case of *Lichen scrofulosorum*.

Dr. GRAHAM LITTLE showed (1) a case of an affection of the buccal mucous membrane of the left cheek which he considered to be an example of the somewhat uncommon condition known as *Fordyce's*

disease. On the mucous membrane there was a group of small raised white patches the size of a large pin's head, which had persisted for the past three months unchanged. The chief element of doubt in the diagnosis was the fact that the patient, a woman aged about 40, had an attack of Lichen planus, which had almost entirely subsided, leaving pigmented patches on the limbs, and it might be thought that these white patches were the ordinary Lichen planus of mucous membranes; but the exhibitor took the view that these were not like the affection common in Lichen planus, inasmuch as the arrangement suggested retention cysts of mucous follicles, and the appearance was at any rate entirely like that depicted in the figure illustrating Fordyce's disease in Stelwagon's text-book.

Dr. STAINER thought that the co-existence of Lichen planus made it unnecessary to seek any further cause than that disease for the appearance in the mouth, and he did not consider the character of the lesions inconsistent with Lichen planus.

The PRESIDENT agreed with the exhibitor in his diagnosis, although he was of opinion that Fordyce's disease commonly implicated the lips rather than buccal mucous membrane, and the lips were free in this case.

Mr. HITCHINS thought Lichen planus was a sufficient explanation of the lesions of the mouth.

(2) A case of *early inoculated Tuberculosis* of the cheek in a child aged about four years. In the centre of both cheeks there were patches of tubercular infiltration, the size of a shilling in the case of the larger and older patch on the left cheek, the size of a sixpence in the case of the smaller patch on the right cheek. The older lesion had appeared two years ago, and the more recent one twelve months ago. The symmetry was peculiar, and suggested a common cause for the two lesions, such as the infection by the saliva of a tubercular patient; in kissing, for example. The many instances of infection of the wound of circumcision by the saliva of the operating priest in the Jewish ritual, as reported by Bernstein, gave a complexion to this theory which derived some support from the history. A young maternal uncle had lived in the house with the patient, and had died of phthisis at the age of nineteen fifteen months previously. The mother had also lost an earlier child by another father of phthisis several years ago.

(3) A case of rapidly advancing *Lupus of the nose* in a young woman looking in other respects the picture of rosy health. She

lived in the country, not very far from Birmingham, and had gone to that town for treatment by X-rays, which had been applied three times a week for the past six months, the disease having lasted at the most ten months. The condition had become rapidly worse in spite of this treatment, and at the present time the greater part of the nose was occupied by an ulcerating, almost fungating, mass of tubercular tissue. The failure of X-ray treatment was worth recording, especially in a case of this early ulcerating type, which usually did best with X-rays. The patient had been naturally disheartened by the failure of the rays, and had come to London for different treatment. It was proposed to try the effect of radium.

(4) A case of a *bullous eruption* which had apparently come in the course of an attack of *Scabies* in a boy aged 15, the subject of *Diabetes mellitus*. The patient was one of five children, all of the family being the victims of scabies and under treatment at the present time. The history was that a week or so after contracting scabies (indicated by the beginning of intense itching) this patient had developed blisters on the hands, the legs, and the body. The blisters had not been actually seen by the exhibitor, but at the time of showing large flakes of epidermis were visible on the dorsum of the hands, suggesting the presence of bullæ, three by two inches across in the largest instances, and there was a flat bulla present along the left forefinger. The remains of large bullæ were also to be found on the knees, on the chest, and over the shoulders, in the positions, that is to say, of scabies eruptions. The exhibitor was therefore of opinion that the eruption of bullæ was the result of septic infection by scratching, the reaction being probably aided by the constitutional disease of diabetes and the malnutrition resulting. The boy's height was only four feet, although he was fifteen and his younger brother, aged ten, was a head taller. There was a copious precipitate of reduced sugar with Fehling's test. Burrows were demonstrated on the hands at the meeting, and there was a typical eruption of scabies in the usual parts.

(5) A case of an anomalous eruption, which was shown as a possible instance of *circinate seborrhoic Eczema* in a man. He suffered from a stricture of the urethra, and had uncomfortable enuresis. For this he had been treated for the past five or six weeks in the casualty department with five-minim doses of Tinct. Bellad. three times a day.

Ten days ago he had come out in a vivid red eruption all over the trunk, with a less thickly distributed, somewhat scattered, eruption on the legs and forearms. The rash consisted of nummular patches of dermatitis, vividly red and slightly and finely scaly, and very itchy; there was no general erythema, and its duration, for ten days at least, seemed to negative the diagnosis of belladonna rash. There was, moreover, no dilatation of the pupils, and no cardiac irregularity such as accompanies belladonna poisoning. The rash is still present, a week having elapsed since it had shown.

Dr. BOWLES did not think it was a belladonna eruption, although he had seen an eruption apparently due to belladonna plasters persist for ten days and longer.

The PRESIDENT did not think it was due to belladonna, but did not arrive at any definite diagnosis.

Dr. STAINER thought it was a toxic eruption, and did not think the time was too long for the rash of belladonna poisoning to persist.

Dr. V. H. RUTHERFORD exhibited the interesting case of *polymorphous Syphilodermata* shown at the January meeting of the Society. One month's treatment with iodide of potassium and perchloride of mercury had removed most of the lesions in a very satisfactory manner.

Dr. SAVILL showed (1) *Urticaria pigmentosa* in a boy aged 6. The eruption began when only a few months old, and had existed since that time. He is a very nervous and emotional child, and when fresh crops of the eruption come out there is great irritation of the skin and irritability of temper, so much so that no one can do anything with him. He is also liable to bleeding from the bowel and nose. This case is referred to by Dr. Savill in the *Lancet* for January 30th, 1904.

The PRESIDENT said, in his experience, the early symptoms in these cases were those of ordinary urticaria, the characteristic lesions of *Urticaria pigmentosa* appearing later.

Dr. BOWLES asked Dr. Savill if he had observed that this disease occurred more frequently in males than females.

Dr. SAVILL replied that he had not had sufficient cases to give an opinion on the point.

Dr. CLOWES remarked that the hæmorrhagic diathesis being more prevalent in the male sex might be a predisposing cause to this end.

(2) *Generalised Tuberculosis cutis* in a little girl aged 4. The con-

dition had existed for three years, during which time she had been treated in the country with no effect. There were a number of raised patches with considerable induration scattered about the body. She was treated in hospital, and the improvement in fourteen days had been so marked that there was an element of doubt as to the correctness of the diagnosis.

The general opinion of those present was in favour of an eczema with considerable thickening.

(3) *A case for diagnosis* in a girl aged 9. She exhibited a variety of lesions—an ulcerated toe, which had existed for a year, showing no tendency to heal; a thickened toe; chilblains on the hands; and an indolent, red, papular eruption distributed about the body. Some of the lesions were vesico-pustular, while others had small adherent scales.

The general concensus of opinion was in favour of a tubercular condition.

Mr. ARTHUR SHILLITOE showed (1) a case of relapsing *Rupia*. The patient, a man aged 30, was admitted into the Lock Hospital last August, with a hard chancre on the prepuce of four months' duration, and extensive rupial ulceration of the limbs and face of two months' standing. He had received no treatment for the seven weeks previous to admission. He was discharged to the out-patient department on January 2nd, 1904, all the places being completely healed. On admission he weighed 8 st. 4 lbs.; on discharge 10 st. 7 lbs. He received during his stay in the hospital eighteen intra-muscular injections, 10 minims = $\frac{1}{3}$ gr. of Sal. Alembroth per injection; and Izal baths daily. February 23rd, he first attended the out-patient department, having had no treatment for three weeks, and all the rupial places have relapsed.

(2) *A case of papular Syphilide*. A man, aged 53, does not remember having exposed himself to infection for over five years, but allows that he has been drinking very freely lately. He has phimosis with a concealed chancre, a very general papular eruption, and two exactly symmetrical, punched-out, gummatous-looking ulcers, one over each tibia.

(3) An unusually bright red *papular Syphilide*, which he states he has been told is chicken-pox. He, like the last case, denies having exposed himself; but he has in addition an indurated chancre, general adenitis, and ulcerated throat.

CLINICAL NOTE.

A CASE OF A PECULIAR AFFECTION OF THE MUCOUS MEMBRANE OF THE LIPS.

BY J. M. H. MACLEOD.

IN 1896 in the *Journal of Cutaneous and Genito-Urinary Diseases*, Dr. Fordyce of New York contributed a paper entitled "A Peculiar Affection of the Mucous Membrane of the Lips and Oral Cavity," illustrated by a coloured drawing of the clinical appearances and a number of reproductions of photographs of microscopical sections. A case recently came under my observation which corresponded in detail with the case which formed the basis of Dr. Fordyce's paper. The patient, a young American lady, aged about 30, was brought to me by Dr. A. W. Oxford with the object of trying if the condition of the lips could be improved by exposure to X-rays or other radiations. As the affection is a rare one, the publication of the notes on the case may prove of some interest. On looking at the patient from a few feet away a faint yellowish white streak was noticeable on the mucous membrane of the upper lip. The streak was narrow in the middle line, spread out symmetrically till it reached about a quarter of an inch in width, and gradually tapered off towards the angles of the mouth. On opening the mouth it was found to have spread for about a quarter of an inch on to the lower lip on each side. The streak was perfectly symmetrical and at a distance seemed as if it might have been produced artificially by a brush dipped in thin fawn-coloured paint. On examining the condition closely and especially when the tissues were put on the stretch, it was found that the lesion was not a homogeneous patch of colour like that of xanthoma palpebrarum, but was made up by the aggregation of a large number of small irregular yellowish-white bodies, varying in size from that of a pin's head to minute specks. These small lesions were flat, were level with the neighbouring mucosa, were not perceptible to the touch, and appeared to be situated deep down in the epithelium. There were no definite subjective symptoms associated with the condition. The mucous membrane of the mouth presented no

abnormal change. The patient had noticed the condition first **about** two years before as a "thin white line or thread" on her upper **lip**. Previous to this she had never suffered from any form of skin disease, and there was no history of a similar affection of the lips in any **other** member of her family. Since it was first observed she had **been** under various forms of treatment, especially ointments, but with **no** decided benefit. Since she came under my observation she **has** had a short exposure to radium bromide, but with no distinct effect. As she is an actress by profession she is naturally afraid of having her lips inflamed by treatment while she is at work, and **has** postponed treatment meanwhile. On account of the situation of the lesion and the circumstances it was unfortunately impossible to obtain a biopsy.

As was stated above the case is a replica of one described by Fordyce, and the coloured drawing which serves to illustrate his paper, except that the under lip is more extensively involved in it, might well serve to illustrate the present case. Fordyce's original case occurred in a physician, and also was noted first about two years before it came under his observation. It differed from the present case in that the mucous membrane of the mouth was involved, and lines of whitish papillomatous lesions were described on both sides extending from the angles of the mouth, along the line of the closed teeth as far back as the molars. Several members of the physician's family were subsequently discovered to be affected with the same affection of the lips in different degrees. The only subjective symptoms recorded consisted of slight dryness, stiffness, and swelling of the lips. Various forms of treatment such as curettage and painting with tincture of iodine, although of temporary benefit, produced no permanent curative effect. A microscopical examination was made by Fordyce, and he found that the affection was the result of a degenerative change in the epithelium of the affected part. This layer was thickened, and the cells immediately above the basal layer and extending up to near the surface were peculiar in that their "nuclei were surrounded by a clear space due to a retraction of the protoplasm of the cell, which was broken up into irregular granules and fragments. These had a bright, glistening appearance, were not stainable by the colouring fluids used," and differed also from kerato-hyalin in being larger and more irregular.

No underlying inflammatory condition was detected. Radcliffe-Crocker, in the last edition of his *Diseases of the Skin*, page 702, refers to the condition as "pseudo-colloid of the lips," and remarks that "in slight degrees this affection is not very rare."

CURRENT LITERATURE.

EOSINOPHILIA IN SKIN DISEASES. By H. S. FRENCH. (*Guy's Hospital Reports*, 1903.)

THE examination of cases recently made by Dr. French will go far to settle the question, which has recently been much discussed, as to the increased number of the eosinophile leucocytes in the blood in cases of skin disease. As is well known, it has been frequently stated that in diseases of the skin the coarse or granular eosinophile cells are relatively increased in large numbers of cases. One observer states that as many as 17 per cent. of eosinophile leucocytes occur in certain skin diseases, especially in prurigo and psoriasis. Other observers state that there is a considerable increase, and mention such diseases as the following as being specially liable to show these phenomena :—pemphigus, urticaria, dermatitis herpetiformis, and psoriasis.

In order to form a definite opinion on this question, Dr. French first of all gives the record of actual blood-counts, gathered from original papers by different observers. Dr. French assumes that the following table represents approximately the proportions of the different varieties of leucocytes in normal blood.

Small lymphocytes	20 to 30 per cent.
Large lymphocytes	4 to 8 „
Polymorphonucleated cells	62 to 70 „
Eosinophile cells	0.5 to 4 „

Cabot states that in his opinion "any proportion of coarsely granular eosinophile cells less than 5 per cent. is within the normal limits; or that there must be over 5 per cent. of coarsely granular eosinophile cells to constitute eosinophilia, and it would probably not be called marked eosinophilia unless there were 10 per cent."

As the result of the reports collated Dr. French says :—"It will be seen that, of the above sixty-nine patients with skin diseases, only twenty-one, or less than one-third, showed eosinophilia; three out of eight with eczema; three out of ten with lupus vulgaris; one out of five with measles; four out of six with pemphigus; three out of four with psoriasis; two out of nine with scarlet fever; two out of three with sclerodermia; two out of thirteen with syphilis; and none at all with acne vulgaris, cutaneous burns, erythema from salol, erythema multiforme, herpes zoster, lichen ruber planus, chronic urticaria. And the only cases in which it was marked, six in all, were one case out of eight with eczema; one out of ten with lupus vulgaris; three out of six with pemphigus, and one out of four with psoriasis."

The cases investigated by Dr. French himself were almost entirely obtained from the out-patient department of Guy's Hospital, under the care of Sir Cooper Perry, by whom the diagnosis in the majority of instances was confirmed. Some

ninety patients in all were examined, and many hundreds of blood-counts were made.

In only thirteen was there eosinophilia, according to the standard which Dr. French laid down, and in only four was the eosinophilia marked. Apparently, therefore, eosinophilia is far from being a characteristic of skin lesions in general, and in the few cases in which it does occur it cannot be said with certainty that the skin disease is the cause. Unfortunately no case of pemphigus, a disease in which eosinophilia appears to occur more commonly than in many others, came under observation. In one case of Dermatitis herpetiformis 13·5 per cent of eosinophile cells were found.

From the abstracts of the cases given by Dr. French it appears that the extent, intensity, and duration of the skin affections do not appear to bear any relation to the amount of eosinophilia, and in consequence the statement made by Canon, to the effect that "it seems less the kind of skin disease or its local intensity than the duration of the disease process which influences the increase of eosinophilia," does not receive support.

It is clear that Dr. French commenced his investigation with the expectation that eosinophilia would be of frequent occurrence in skin diseases and might be of diagnostic importance, but has been obliged to sum up adversely to this hypothesis. His conclusions, which are appended, are of interest, and the table of cases will be of much service for reference to those engaged in the blood-examination of cases of skin disease.

In these ninety patients—

1. There were a very large number who showed no eosinophilia at all.
2. There were a few who showed slight eosinophilia.
3. There were only four who showed marked eosinophilia.
4. There were none of the skin conditions investigated in which eosinophilia was not the exception rather than the rule, except in—
 - (a) Pemphigus;
 - (b) Dermatitis herpetiformis; and possibly in
 - (c) Xanthoma diabetorum.
5. There were a large number of skin affections in which, as far as the research went, no single case of eosinophilia occurred.
6. There were parasitic skin diseases showing no eosinophilia.
7. There were a few individuals suffering from psoriasis, from eczema, or from syphilis who showed eosinophilia, but many who showed none, so that, owing to its erratic occurrence, the presence or absence of eosinophilia will not serve as a means of diagnosis between syphilitic affections and the other two.
8. There was no evidence in favour of "Canon's law."
9. There was, upon the whole, but with individual exceptions, a relative diminution of polymorphonucleated cells.
10. There was a tendency to a relatively high proportion of lymphocytes.
11. The fall in percentage of polymorphonucleated cells was approximately equalled by the rise in percentage of small lymphocytes.
12. The lymphocytosis was not constant, except in the patients suffering from—
 - (a) Congenital syphilis;
 - (b) Urticaria;

in each of which conditions it was well marked.

J. G.

OCHRONOSIS: THE PIGMENTATION OF CARTILAGES, SCLEROTICS AND SKIN IN ALKAPTONURIA. By WILLIAM OSLER.
(*Lancet*, January 2nd, 1904, p. 10.)

BLACKENING of the cartilages of the body was observed in 1866 by Virchow, and although the coal-black appearance produced in this condition was recognised as not being due to melanin, its etiology was left unexplained. To this rare condition Virchow gave the name of Ochronosis. Other cases have been recovered from medical records by Dr. Osler, in some of which melanuria was said to be present, and in at any rate one or two the presence of alkaptonuria seems to have been definitely excluded. In long-kept urine of Hanseemann's case, Meyer states that there was no reduction of copper and no homogentisic acid could be found, whereas melanuria was stated in 1892 by Hanseemann to have existed for eighteen years (*Berlin. klin. Wochenschr.*, 1892, Bd. xxix, p. 60).

Again, in Hecker and Wolf's case (*Festschrift Dresden Hospital*, 1899, p. 325) there had been long-standing melanuria. But although it is definitely stated that the urine did not reduce copper, it is also said that the urine was sometimes normal in colour when passed, and sometimes brownish. It became black on standing for a day or two. In spite of this suggestive condition Dr. A. Garrod says that it is pretty certain that this was not a case of alkaptonuria.

H. Albrecht records another case in which alkaptonuria is definitely stated to have been present, and on the examination of this patient general ochronosis existed.

Dr. Osler adds to these records notes of two brothers who have come under his observation. The first case, a man aged 57 years, was referred to him as a case of diabetes. He had also rapid action of the heart. After careful and repeated examination of the urine in consultation with Dr. Fitcher, it was determined that the copper-reducing substance was not glucose, and that the condition was really alkaptonuria of long standing. In this patient there was present the peculiar pigmentation described. There was darkening and blackening of the sclerotics; a blue-black appearance exactly like that produced by dilated veins was observed in the cartilages of both ears. Over the hands and the cheeks, in very much the butterfly distribution of *Lupus erythematosus*, the skin was of a coal-black colour. The colour was remarkable, quite unlike that seen in the ordinary pigmentary changes,—at the first glance rather suggesting powder marks. It was noted also that small black spots had begun to appear on the back of the hands. An interesting occurrence, in accord with facts already known regarding the presence of this peculiar condition of the urine, is that one of this patient's sons has alkaptonuria.

Dr. Osler's second case was the brother of his first patient. His condition was first recognised on an examination of the urine, when diabetes was evidently suspected. It was soon proved that the copper-reducing substance was due to the presence of alkaptonuria, and the patient remained quite well. He visited his elder brother in the hospital while in Dr. Osler's care, and the peculiar blue-black colour in the sclerotics and the skin was readily observable. This patient died in April, 1903, from pneumonia, and no post-mortem examination could be obtained.

Dr. Osler makes the remark: "These brothers presented a singularity in gait,

walking with a slight bend or incline of the hips. At first I thought the elder brother had had spinal disease; but the spine was straight and the motion of the hip-joint was perfect. He had had rheumatic pains in several joints, and there were several Heberden's nodes."

In one or two cases recorded on account of the presence of alkaptonuria the pigmentation of the cartilages of the skin has been casually remarked. It is clear then that some of the cases, at any rate of ochronosis, occur in long-standing cases of alkaptonuria. But as in two or three recent cases the dark tint does not concur with the presence of either homogentisic or uroleucic acid in the urine, it is probable that the cases of ochronosis described may be ranged in two distinct categories.

J. G.

CASE OF MYCOSIS FUNGOIDES SYMPTOMATICALLY CURED BY MEANS OF X-RAYS. JAMES P. MARSH. (*Amer. Journ. Med. Sci.*, August, 1903.)

THIS important note becomes of greater value when taken in conjunction with other information on the subject, such as the recent paper published by Dr. Allan Jamieson (*Brit. Journ. of Dermat.*, January, 1903), and the recent case reported by Dr. Stainer (*ibid.*, pp. 137—212, 1903). The patient was a woman, sixty years of age, who was referred to Dr. Marsh in September, 1902, with the diagnosis of Mycosis fungoides, showing at the time three distinct growths—one on the back of the neck, one on the nose, and one on the upper lip. The illness commenced ten years previously by the appearance on the back of her neck of a small red point, which gradually enlarged in all directions until it became a large red patch about two inches in diameter. After four years of this preliminary dermatitis, small, raised, hard lumps appeared on the margin. In 1889 the same process began on the left side of the nose, and six months before coming under observation a lesion appeared on the upper lip, which took a distinctly ulcerative action almost from the commencement.

Details of the treatment are given in full—an important point when studying X-ray therapeutics. Treatment was commenced on September 23rd, and on October 10th the note is made, "The lip is now apparently well." The treatment was continued till December 31st, exposures of from ten to fifteen minutes being given alternately to the nose and neck at intervals of about four to seven days. On December 31st the note is made, "The parts in question are now symptomatically well, all that can now be seen being a slight hyperæmia of the skin."

J. G.

CONTRIBUTION TO THE HISTOLOGY OF VERRUCA SENILIS.

POÓR. (*Dermat. Zeitschr.*, Bd. x, p. 462.)

AFTER a review of the literature of this affection, Poór gives his own investigations. The horny layer was moderately thickened, especially round the openings of the hair-follicles, where a well-marked accumulation of horny material was to be seen. In the deeper parts of the layers some of the cells retained their nuclei (parakeratosis). The Malpighian layer appeared at first sight to be thickened, but this was more apparent than actual, and was due to comparison with the

atrophied Malpighian layer on each side, and to the separation of the cells by other structures. These structures consisted of large round or oval cyst-like cavities, which riddled the epidermis in many places. Some of these were dilated follicle mouths, some were horny accumulations due to irregular dipping down of the horny layer, and others were the cross-sections of papillæ. (Such simple histological appearances are hardly likely to have been mistaken by expert histologists for spontaneous development of cysts in the epidermis, as the author suggests.—A. W.)

The corium showed the characteristic degenerations of old age, and the elastin was partly changed into elacin. The sebaceous glands were cystically dilated and the openings blocked. The explanation which Poór gives is that owing to the atrophied state of the muscles and degenerated connective tissue the requisite pressure on the sebaceous glands to cause the extrusion of the contents is not forthcoming, and that consequently there is a stagnation, while the abnormal cornification, which is typical of senility, is sufficient to block the opening, thus causing cystic degeneration, and also to cause the occurrence of the horny masses which are the dominant clinical and histological features.

A. W.

ON BOVINE INOCULATION TUBERCULOSIS. LASSAR. (*Dermat. Zeitschr.*, Bd. x, Heft 5, p. 505.)

WITH reference to the contention of Koch that bovine tuberculosis is not pathogenic for man, Lassar showed, some time back, an assistant of Prof. Ostertag who had developed a patch of Tuberculosis verrucosa cutis while experimenting with the secretion from the throats of tubercular cattle. Lassar finds that local tuberculosis of the hands is by no means a common affection, having occurred only thirty-four times in 108,000 patients seen by him in ten years. In investigating the frequency of the affection among those engaged in the slaughter-houses, statistics of which could not be obtained in completeness, he found that over 2 per cent. were thus affected. Two cases of rather special interest are mentioned in this paper—one a man who was constantly using a microscope for the detection of trichinæ. This patient developed a local tuberculosis on the exact position where the eye-piece rested against his cheek. The second case was that of a man who had at one time to do with diseased cattle exclusively, and had then developed a warty growth, first on the umbilicus, and then on other parts of his body. It was found that he had tubercular warts on the right middle finger, and that he was in the habit of scratching himself all over when he undressed. As the result of the investigation Lassar comes to the conclusion that tubercular beef has contagious properties for human skin.

A. W.

ON CORD-LIKE PHLEBITIS IN EARLY SYPHILIS. HOFFMANN. (*Dermat. Zeitschr.*, Bd. x, Heft 5, October, 1903, p. 470.)

THE first case quoted is that of a man aged 36 years, who had been infected with syphilis a little over three months before he came under observation. He then showed a cord extending from the middle of the left calf into the middle of the popliteal space. This was of the thickness of the little finger, hard, tender, provided with nodular thickenings, movable under the skin, which was of normal

appearance, and had at the lower end a swelling in the gastrocnemius of the size of a walnut. No œdema of the foot was present. Under mercurial treatment the swelling disappeared, but the cord was still palpable three months later. Constriction of the limb, sufficient to obstruct the venous but not the arterial circulation, caused the vein to dilate, proving that it was patent. Seven months later all symptoms had disappeared.

The second case was that of a man aged 22 years, who suffered from a swelling in the right calf and thigh about two months after infection. A month later he came under observation, and his condition was then as follows:—Exactly corresponding to the saphena magna in both legs he had thick cords running from the dorsum of the foot to the fossa ovalis. From the ankle-joint to the knee the swelling was about the thickness of a goose-quill, and in the thigh about as thick as a pencil. There were spindle-shaped thickenings on the cord, which was hard and rather tender. There was also a somewhat similar condition of the right small saphenous vein. There was no œdema or cyanosis of either foot. Under an anæsthetic two pieces of the vein were excised, the upper portion from the thigh being completely blocked with a thrombus, while the lower portion showed a small cleft beside the clot, through which blood still flowed. In this case the condition, after marked improvement, relapsed somewhat, and when last seen the veins were slightly more palpable than normal. The microscopic appearances showed an inflammation, chiefly affecting the intima and media, and falling with especial severity on the vasa vasorum.

A. W.

**ON THE QUESTION OF THE RELATIONSHIP BETWEEN
BECQUEREL'S RAYS AND SKIN DISEASES. GOLDBERG and
LONDON. (*Dermat. Zeitschr.*, Bd. x, p. 457.)**

IN order to test the action of radium bromide, seventy-five milligrammes were applied to the arm of Dr. Goldberg and left in contact for three hours. On removal there was nothing abnormal to be seen. On the fourth day a red area, exactly corresponding to the disc of the radium holder, was seen. This gained in depth and colour, and a hard infiltrated zone formed round it. Next a serous bulla formed, and two days later the epidermis was exfoliated wholly and left the corium denudated, this latter then rapidly breaking up to leave an ulcer. The infiltration and the ulcer gained in size, and acquired heaped-up edges and a sloughy base. On the sixteenth day new patches were formed on the same arm, exactly resembling that which had developed on the area of contact. Two weeks later another patch formed on the chin, another on the flexure of one hip, and a third on the right hand. The only difference between these new patches and that first formed lay in the fact that they healed earlier; the original sore three and a half months later, in spite of regular surgical treatment, being still an atonic ulcer, though of only about half its original size. In two cases of rodent ulcer successfully treated by them, they began with one and a half hours' exposure in the first case, followed by half-hour exposures, and a two-hour exposure in the second, followed by one-hour exposures. (One wonders why, in the face of the severe trouble caused by three hours' exposure in one of the authors, they gave such long exposures to these patients. It is true that the treatment was in the end successful, but a good deal of necrosis was produced.)

A. W.

CONTRIBUTION ON THE HISTOLOGY OF LEPROSY OF THE SKIN. Prof. SAKURANE. (*Japan. Zeitschr f. Derm u. Syph.*, March, 1903, p. 1. One plate.)

THIS contribution deals chiefly with the relation of the *Lepra* bacilli to the cells in the nodular and anæsthetic lesions of leprosy, and the following are the more important conclusions arrived at :

1. *Lepra* bacilli are both extra- and intra-cellular.
2. The extra-cellular colonies of bacilli are arranged in long lines in the skin.
3. The "globi," or "lepra-cells," are sections of these linear colonies in the lymphatic spaces.
4. The "globi" may also consist of connective tissue cells in the protoplasm of which numerous bacilli are present.
5. The formation of the anæsthetic skin-lesions of leprosy may result either through the direct action of the bacilli on the peripheral nerve-endings or indirectly by acting on the peripheral nerve-trunk or on the central nervous system. Occasionally no trace of bacilli can be detected in the skin-lesions.

J. M. H. M.

ON "KOILONYCHIA" AND "PLATYONYCHIA" HEREDITARIA.

L. WAELSCH. (*Archiv. f. Dermat. u. Syph.*, November, 1903, lxxvii, p. 250).

UNDER the heading of "Koilonychia" Heller described the peculiar concave condition of the nail-plate which is known in this country as "spoon-nail." The writer observed this condition in three generations—in a grandfather, three of his children, and in two grandchildren,—and in every case it was noticed at birth. He considered that in this instance it was transmitted as a family peculiarity, in much the same manner as syn- or poly-dactyly occasionally were. The writer points out that the affection is usually acquired, and has been variously explained as the result of localised eczema of the nails with subungual hyperkeratosis (Heller), and as a dystrophy resulting from an interference with the nutrition of the nail at the matrix (Ohmann-Dumesnil).

J. M. H. M.

CONTRIBUTION TO THE TUBERCULAR ERUPTIONS OF THE

SKIN. E. BRUSGAARD. (*Erythrodermia exfoliativa universalis tuberculosa.*) (*Archiv. f. Dermat. u. Syph.*, November, 1903, lxxvii, p. 227. Four plates.)

IN this contribution the writer describes an exceptionally interesting case which occurred in the clinic of Professor Boeck in Christiania. A woman, aged 63, developed a dermatitis, which began on the inner side of the calves of her legs as red, itchy, slightly moist patches, and in a few months spread from there till it became almost universal, and affected the whole of the skin with the exception of that of the soles of the feet and about the malleoli. The skin, especially on the extensor aspects of the limbs and the back, became markedly infiltrated and desquamated in small scales or as large lamellæ. The scalp was involved, became scaly, and there was a thinning of the hair of the head, and a complete defluvium of the lanugo hairs of the body. The nails, especially those of the fingers,

became opaque, discoloured, and thickened. The skin in places became œdematous, but there was no definite tendency to weeping; and vesicles which tended to run together into bullæ appeared on the palms and soles. The dermatitis was associated with pruritus, which was so severe as to prevent the patient from sleeping, and numerous scratch marks were present. There was a general enlargement of the lymphatic glands. The course of the disease was marked by exacerbations in which the pruritus increased and the temperature rose. The skin of the face, back, and lower extremities next became pigmented, and the pigmentation was specially evident in the situation of hair-follicles. At first the patient's general health was well maintained, but she gradually lost ground, became cachectic, and eventually succumbed to an attack of pneumonia about eighteen months after the onset of the disease. At the autopsy tuberculosis affecting the lymphatic glands, liver, and spleen was detected, and a tubercular ulcer was found in the ileum. A microscopical examination of these glands revealed numerous foci of miliary tuberculosis with tubercle bacilli. A tubercular architecture was also detected in a number of sections of the skin, and tubercle bacilli were found in the giant-cells. The writer regarded the case as an example of a primary universal tuberculosis of the lymphatic glands, with dissemination of tubercle bacilli, either through the blood-stream or the lymphatics, to the skin, where they set up a peculiar type of erythrodermia associated with exfoliation.

J. M. H. M.

**A PRELIMINARY NOTE ON THE TREATMENT OF LUPUS AND
CANCER BY LIGHT AND RONTGEN RAYS. ROBERT B. WILD.**
(*The Med. Chron.*, December, 1903, p. 155.)

IN this paper, which was read before the Manchester Medical Society in April, 1903, Professor Wild gives the result of two and a half years experience in the treatment of lupus and cancer by Finsen light and X-rays at the Manchester and Salford Hospital for Skin Diseases and the Christie Hospital for Cancer. His cases of Lupus vulgaris numbered eighty, and of these twenty-four were still under treatment and fifty-one had been discharged. Of the fifty-one cases discharged, twenty-nine were healed and twenty-two so improved as to be able to return to work. He considered that in this disease his final results were satisfactory in 90 per cent. of the cases. He noted that while the Finsen-lamp and X-ray methods of treatment yielded nearly the same percentage of satisfactory results, the proportion of healed cases to improved cases is much higher in those treated by the Finsen light and the scars more satisfactory.

Like other observers he found that the Lortet-Gerroud lamp was less effective than the original Finsen lamp or the X-rays. For large areas and ulcerated surfaces to which pressure could not be applied, he found that the X-rays were more satisfactory than the lamp, but observed that great care was requisite to avoid excessive reaction, and believed that the best results were obtained when the reaction was slight or absent. He recommended the combined treatment, using X-rays to heal the ulcerated surface and the Finsen lamp to disperse the discrete nodules which remained.

For rodent ulcer, on the other hand, he employed the X-rays alone. He had treated in all twenty-two cases, and of these eighteen had been completed, but

three of them had died. Of the fifteen remaining cases, thirteen were healed, while two of them showed no benefit after two to three months regular treatment, and it was discontinued. In both these cases which did not improve the nose was the region affected, and the ulceration had gone so deep as to expose the cartilage. When complete and free excision was possible the writer still believed that it was probably the best treatment; but where excision would give rise to deformity or where the eyelids were involved he thought the advantage lay with the X-ray treatment, owing to the very slight loss of tissue. In inoperable cases the X-rays seemed to him to be superior to caustics and caused less pain.

In epithelioma his results had been unsatisfactory. In ten cases, all of which were inoperable or recurrent after operation, nine of the patients had died. Two of the cases were "papillomatous growths on old lupus scars which seemed to have healed under X-rays, but in which recurrence took place while the patients were actually under treatment." On this account the writer had grave doubts as to the prophylactic value of X-rays in preventing a recurrence after operation for cancer.

Eight cases of advanced and inoperable scirrhus of the breast had also been treated. Of these, three had died, and in five he had discontinued treatment owing to increased weakness or to the fact that no benefit had been derived; but in all except one there was considerable relief from pain. In three of the cases temporary benefit accrued and the rate of progress was checked.

With regard to rodent ulcer, the use of the X-rays seemed to the writer to be fully justified, and he recommended that the treatment be continued for a period after the lesion had apparently healed; but in the case of carcinoma and epithelioma X-rays did not seem to him at present to in any way lessen the necessity for early and radical surgical treatment. In recurrent and inoperable cancer, on the other hand, he believed that X-rays certainly relieved pain, lessened discharges, caused shrinkage of the growth, and might possibly lead to recovery.

J. M. H. M.

A CONTRIBUTION TO THE KNOWLEDGE OF THE SO-CALLED EPIDERMOLYSIS BULLOSA HEREDITARIA. THE SIGNIFICANCE OF THE RETENTION CYSTS IN THE SWEAT-DUCTS. J. BUKOVSKY. (*Archiv f. Dermat. u. Syph.*, November, 1903, lxvii, p. 163.)

In spite of the large number of cases of Epidermolysis bullosa hereditaria which have been reported, there is still considerable uncertainty both with regard to the pathology and to the etiology of this peculiar affection of the skin. As a contribution to the subject the writer of this paper has described in detail a case which he had the opportunity of studying in Professor Janovsky's clinic.

When the patient first came under observation he was aged 17 years, and his skin presented a number of flaccid vesicles and bullæ, varying in size from a lint-seed to a filbert-nut. The bullæ were in different stages of evolution, some commencing, while others had dried up or had broken and left the corium exposed. Besides these lesions there were large numbers of scars which had resulted from the healing of old lesions. These were oval or roundish in shape, were smooth,

atrophic, and glancing, and were encircled by a pigmented ring. The scars were most numerous and best marked on the flexor aspects of the extremities and on the abdomen. In and near many of the scars there was a number of milium-like lesions, which varied considerably in appearance and situation in the skin, some being hard, roundish bodies, yellowish in colour, and raised above the skin; others being deeply seated and more readily felt than seen; and a few had become transformed into small scales. These small nodules were grouped in some places, and irregularly distributed in others. On the nails of both the fingers and toes defects were noticeable, and various degrees of onychogryphosis detected, from simple thickening and irregularity of the surface to deformity and discoloration. The mucosa of the mouth was affected, vesicles being present on the soft palate. The bullæ on the body developed after any injury, however slight, such as a scratch, rubbing the skin, or even lying on it, but even a severe scratch did not cause bleeding. Exposure of the skin to electrical discharges and Röntgen rays did not result in the formation of bullæ. There was no urticarial element present, and no *Urticaria factitia*. The disease began when the patient was three years of age, and appeared first on the foot, about the ungual phalanges, and spread from there on to the extremities and trunk. There was no history of it in any of the family or antecedents. The condition had persisted without any decided improvement till he was seen at the clinic. In spite of various forms of treatment, no distinct amelioration in the state of the skin had resulted, and the patient died two years later, at the age of nineteen, from general tuberculosis. The case is specially interesting on account of the absence of a history of it in the family, and the length of time it had persisted.

During the life of the patient a histological examination was made. A blister, resulting from a slight scratch on the forearm, was excised about half-an-hour after the trauma. Sections of this tissue were made. These showed that the whole of the epidermis was raised up from the corium to form the bulla. In this way the papillæ were left bare, with not a trace of the basal layer adherent to them. The epidermis was otherwise healthy, the stratum granulosum normal, and there was no trace of vacuolation in the cells, such as occurs in the parenchymatous vesicular formation of varicella or the advanced interepithelial cedema which is present in the vesicles of eczema. No definite changes were detected in the blood-vessels, nor was there any marked inflammatory infiltration around them.

The writer then discusses the nature of the bullous lesions. He does not believe them to result from exudation, since no definite pathological changes were observed in the underlying blood-vessels. He does not consider them to be true blisters, but regards them as the simple result of a loss of continuity of the epidermis and corium from traumatism. He does not believe that this susceptibility to injury is caused by an anatomical change in the skin, since the skin immediately around the actual lesions seems to be unaffected, or by chemical changes, but considers that it results from a physical defect by which the contractibility of the epidermis and corium is markedly different.

Milia-like bodies, similar to those mentioned above, have been observed frequently in association with pemphigus and *Dermatitis herpetiformis*. Histologically these were found to be connected in this case with sweat-ducts, and were retention cysts of the ducts, produced by the blocking of their orifices from

the healing of bullæ. They occurred sometimes deep down in the ducts, but the glands themselves were never involved, and the deeper the cysts the smaller they were. After some time these cysts dried up and were replaced by scales.

J. M. H. M.

TWO CASES OF MYCOSIS FUNGOIDES. E. RIECKE. (*Archiv f. Dermat. u. Syph.*, November, 1903, lxvii, p. 193.)

THE two cases of Mycosis fungoides which are carefully reported in this paper occurred in the clinic of Professor Riehl, of Leipzig. They were both atypical cases, and on account of the peculiarities presented by them the author considered them to be worthy of permanent record. The first case was that of a merchant aged 49, in whom the disease first appeared in October, 1898, and after a rapid course ended fatally in April of the following year. It began as a scaly patch on the right thigh. Other red, scaly, irregular patches appeared on the trunk and extremities. A number of varying sized deep red nodules, plaques, and tumours next developed about the back, shoulders, and thighs. These seemed to form on apparently unaffected skin, and not on the scaly patches. The tumours showed no tendency to ulcerate, but several of them tended to involute in the centre, which became depressed and covered with a brownish scale, and to assume a ringed appearance, while others became papillomatous. As the tumours developed the patient's general condition became rapidly worse, and a high degree of cachexia supervened. Severe rheumatic pains attacked the joints of his hands and knees, and he died in an emaciated condition about six months after the onset of the malady. There were several peculiarities associated with the history of the case, in addition to its unusual rapidity. During its whole course there were no definite subjective symptoms, with the exception of the joint pains; and the intolerable pruritus, which is so usually associated with the premycotic phase as to be regarded as pathognomonic of it, was wholly absent. The premycotic lesions persisted throughout the course, and did not exhibit the usual tendency to remission and exacerbation. The glands were not appreciably swollen, a fact which might be explained as the result of the absence of pruritus and suppuration, as it has been asserted that the adenitis in this affection is due to excoriations from scratching and absorption from ulcerated surfaces, both of which were absent.

The second case described by Riecke is that of a man aged 53, who dated the affection from an injury received on the back of the head by a fall. Almost immediately after the trauma, a swelling about the size of a plum formed on the scalp. This gradually assumed a livid red appearance, and was firm and elastic to the touch, and many of the hairs fell out from it. It gradually spread at the periphery till it reached the size of the palm of the hand, and became depressed in the centre and covered with dirty scales, but did not ulcerate. Several months later other tumours of a similar character appeared on the scalp, but these tended to break down. The skin of the neck next became affected, and a sheet of infiltration formed in it, which spread down as far as the clavicles. The mucous membrane of the nates also became involved, and ulcerating tumours developed on the hard palate. The patient gradually lost ground, became anæmic and cachectic, and died about a year and a half after the onset of the disease. At the post-mortem, metastatic growths were detected in the dura mater, kidneys, supra-renals,

and retro-peritoneal glands: and these had the same histological architecture as sections of one of the tumours of the scalp. The chief interest of the case lies in the history of injury and in the development of tumours *d'emblée*.

J. M. H. M.

ELEPHANTIASIS AND ITS TREATMENT. WILLIAM ELDER and EDWIN MATTHEW. (*Edin. Med. Journ.*, December, 1903, p. 504.)

THIS paper is based on the successful treatment of a case of elephantiasis which had been under the care of one of the writers for a number of years, and had been treated by a method recommended by Felkin in 1889. The patient was a widow who had had no children. At the age of twenty she went out to Burmah, where she remained for two years and enjoyed excellent health. She returned to this country for five years, and went out to Burmah again for two years, where she contracted fever, had two attacks, and suffered much from the bites of mosquitoes. She returned home again and remained in tolerably good health for several years, but some time after her return she noticed a slight swelling at her left ankle. This gradually increased until a well-marked elephantiasis of the left leg became evident. When she came under observation the disease had been present for about fourteen years. The limb was increased in thickness from the thigh down to the foot, and was round and distended so that the outlines of the bones were not distinguishable. At the bend of the ankle there was a deep furrow. The limb felt hard and brawny, and the surface of the skin was dry and harsh. It never perspired, and the sense of touch was diminished. On pricking it with a pin there was a small exudation of a clear yellowish-tinted fluid, but it was difficult to get a drop of blood from the pin-prick. During the early years of the illness she suffered much from feverish attacks, which simulated influenza, and were probably of the nature of the "elephantoid fever" of Fayrer. An examination of the blood gave negative results so far as the finding of filarial parasites was concerned, but there was an increase of lymphocytes, and the eosinophiles averaged 8 per cent. in twelve counts. Eosinophilia has been pointed out by Gulland, Calvert, and others to be an accompaniment of filariasis, as well as of many other parasitic diseases. The treatment commenced on March 13th, and was continued till June 5th, 1902. This consisted of rest in bed, light diet, general tonics, and massage, especially of the swollen limb. At first massage was performed for a short time, but in a few days the rubbing was more prolonged. The constant current and electrical heat baths were also applied daily. By this means there was a gradual and steady diminution of the size of the affected limb, until it differed very little from the other one. After the massage was discontinued an elastic stocking was ordered, and the limb has remained in much the same condition since.

J. M. H. M.

HYPERTROPHIC ACNE OF THE NOSE, AND ITS SURGICAL TREATMENT. DUBREUILH. (*Annales de Derm. et de Syph.*, November, 1903, p. 785.)

AFTER a careful exposition of the ætiology and histology of this affection Dubreuilh proceeds to consider the treatment, especially by surgical means. In early stages attention to diet and local antisepsis are sufficient; and he commends especially for the latter purpose spraying the affected area with sulphur

lotion. The enlarged sebaceous glands may also be attacked at this stage with electrolysis, a blunt needle attached to the negative pole being introduced into the dilated orifice. But this method is not very efficacious, and leaves depressed scars. When hypertrophy is definitely established, with deformity and tumours of the nose, surgical measures are alone satisfactory. Ollier, in 1876, proposed a proceeding which he called "decortication" (stripping the bark of a tree), by which a fresh nose, as it were, was carved out of the conglomerated mass presented by the disease, the means used being the actual cautery or the bistoury followed by cauterisation. His results were excellent, and the operation was adopted four years later by Hebra. Debreuilh prefers the thermo-cautery to the knife, and considers subsequent grafting not particularly desirable. The epidermal linings of the numerous secretory ducts from the sebaceous glands which are severed by the operation serve as centres for the production of new epidermis, and as a matter of experience he finds these wounds skin over quite rapidly without grafting; in fact, the latter process sometimes actually impedes the healing. When the bistoury is used perhaps skin-grafting is useful in hastening recovery and preventing cicatricial contraction. His procedure, described in detail, is as follows:—General anæsthesia is produced by chloroform, and a median incision is made down the nose through the tumour. Each half of the tumour thus divided is then dissected off the nose, the finger of the operator being introduced into the nostril to serve as a guide to the approach of the instrument to the nasal cavity. A roughly hewn new nose is thus produced, and successive slices are then carefully pared off with the bistoury, bleeding being arrested by the thermo-cautery, until a distance of about half a centimeter separates the surface of the wound from the guiding finger in the nostril. Suppuration usually takes place in the wound, owing to the septic crypts in the sebaceous glands, and wet boracic dressings after operation are recommended. The superficial slough is generally shed at the end of seven days, and some secondary hæmorrhage, easily controllable by compression, may take place at this time. At the end of the second week large islands of epidermis should cover the wound, but in the intervals between them there may be patches of granulation tissue, and here is the opportune moment for skin-grafting of these surfaces. The final result is excellent; those parts of the wound in which sebaceous glands were left have these orifices as in normal skin; those parts in which skin-grafting on granulation tissue was practised are recognisable as being formed by skin alien to this region, but the general effect is surprisingly natural, and no instances of recurrence after operation have been recorded.

Details of the results in six cases thus treated are given, and a series of photographs before and after treatment in four cases are reproduced, and certainly show a remarkable degree of success in reducing this formidable deformity. A useful bibliography is appended to this important paper.

E. GRAHAM LITTLE.

ON THE DEVELOPMENT OF THE PIGMENTED SYPHILIDE OF THE NECK: A CLINICAL RESEARCH. HULLEN. (*Annales de Derm. et de Syph.*, October, 1903, p. 730.)

THIS is an attempt to solve the question as to whether the pigmented syphilide of the neck has its origin in a previous eruption of the roseolar or papular type,

or is itself the first eruption to appear in this position. The latter view is supported by Fournier, and held generally by the French school. The former explanation is widely prevalent in Germany since the work of Neumann on the subject. It is, again, a matter of argument whether the white area of the fenestrated appearance is actually a depigmentation and the surrounding skin normal, or whether this latter is hyperpigmented. It is probable, in fact, that both the pale and the dark areas are pathological, and that the cases are to be described as combined leucoderma and melanoderma. Hullen made a careful clinical examination of twenty-two cases in the out-patient department of Thibierge at the Broca Hospital, and was able to establish the gradual development of ordinary roseolar and papular eruptions into the pigmented fenestrated eruption of the neck. The method adopted was to take a tracing of all eruptions of papular or roseolar type situated on the neck, and to follow up these cases. In those here described which developed pigmented eruptions the clear depigmented areas were seen to appear in the positions of the papules or roseolous patches observed in the earlier history of the case. The explanation is offered that (1) the depigmented patches are the remains of previous syphilitic lesions attended by a certain thinning of the Malpighian body; (2) the pigmented patches are due to a migration of pigment determined by the presence of the syphilitic virus; (3) the neck is especially affected, as being a situation in which anomalies of pigmentation are frequent.

E. GRAHAM LITTLE.

THE STAPHYLOCOCCI OF CHRONIC ECZEMA. By Dr. FRITZ VEIEL. (*Münch. med. Wochenschr.*, January 6th, 1904, p. 13.)

FOR this investigation Veiel confined his attention to cases of chronic eczema. Acute eczema, seborrhoeic eczema, and dermatitis lichenoides pruriens (lichen simpl. chron. of Vidal, neurodermitis chron. circumscrib. of Brocq) were excluded. Most of his cases belonged to the type of *E. madidans* and *E. crustosum*. He found that in all forms of chronic eczema, and in all stages of the same, staphylococci are present, generally yellow, occasionally white, and very occasionally citron coloured. Save in occasional cases, the staphylococci were present in pure cultures. He asks, "Are these staphylococci of eczema identical with the pyogenic forms or with the saprophytic staph. of the skin, or do they form a distinct species?"

Two methods help to distinguish saprophytic *S.* from the pyogenic forms. The latter produce hæmolysin, and can be agglutinated by a prepared serum, whereas the former cannot. The results are given in a table that shows that in every case the staphylococci of eczema behave as regards these tests just as do the pyogenic forms. In form, staining reactions, and in cultures the two are not to be distinguished. Veiel assumes their complete identity, and now inquires what part they play in the production of eczema. He points out that whereas many authors claim to have produced eczema by inoculation of these organisms, no one has succeeded in producing a genuine chronic eczema. But as they are so constantly present, often in pure cultures, he adopts Neisser's view that staphylococci play an important part among the various influences that determine eczema and its course.

WILFRID B. WARDE.

A CASE OF PRIMARY ACTINOMYCOSIS OF THE SKIN. By Dr. WILHELM DREYFUS. (*Munch. med. Wochenschr.*, December 29th, p. 2291.)

THE patient, a boy aged 10, at the age of two developed an abscess on the left breast that healed in about six months. In December, 1900, a swelling appeared on the left breast near the mamilla. After existing six months a second and then a third growth developed. He lost flesh and had no appetite. In November, 1901, it was noted that the skin over the left breast, in an area the size of the palm, was hard and infiltrated, and showed three shilling-sized ulcers with greyish-yellow lax granulations. The whole growth was removed. In March, 1902, it was found that the operation had not produced a cure. In the old scar there were new granulations similar to those noted before. The excised skin was examined at the pathological institute at Heidelberg. Macroscopically a cross section revealed fibrous tracts that, as in the cup of a fungus, pass into the granulations above and are lost in the underlying subcutaneous tissue. Microscopically it was a typical granulation tissue. In the parts above the skin level there was a richly cellular tissue with new fibres, with here and there clusters of small cells, and in the centre some hæmorrhages. At the spot where the growth entered the skin many newly formed vessels appeared. In the depths the growth showed long fibrous bundles. The epidermis, apart from some swellings, possibly of artificial production, was intact. Actinomyces clusters were discovered in the outer part of the growth. As the inner organs were sound, the case was apparently a primary skin affection. There was nothing to indicate the source. The connection between the disease and the abscess the child suffered from at the age of two could not be dismissed. Several cases of a similar long incubation are given. The boy did a great deal of harvesting, and a number of cases are referred to in which the same kind of work was done. Possibly there is some ætiological connection.

WILFRID B. WARDE.

CONCERNING HERPES ZOSTER OTICUS (HERPES OF THE EAR), WITH PARALYSIS OF THE ACOUSTIC AND FACIAL NERVES. By Prof. O. KÖRNER. (*Munch. med. Wochenschr.*, January 5th, 1904, p. 6.)

THE patient, a woman aged 55, had been operated on six months previously for cancer of the breast. Since then she had suffered from pain in the arms and legs, and sometimes in the breast or back. She could not be induced to quit her room, and was pale and without appetite. Her present complaint commenced with an eruption of herpes on the right side of the head and neck. There was pain in the affected area, but only of moderate degree. About eight days after the appearance of the herpes she lost the hearing of her right ear, and at the same time a paralysis of the right facial nerve developed. Körner saw the patient eight days after the deafness appeared. The crusts left by the herpes remained; all were on the right side. The groups were present in the concha and round the margin of the meatus, on the scalp for a finger's breadth above the ear, on the nape of neck, the throat, and on the face in front of the ear and below the zygomatic arch. The branches of the facial nerve going to the forehead and eye

were completely, and the mouth branches slightly paralysed. There was no paralysis of the soft palate. The right chorda tympani was also paralysed. An examination of the right ear showed a normal drum; the watch could not be heard when pressed against the ear, and the bone conduction of sound was lost. Seventeen days later it was reported that under the influence of Fowler's solution and Faradisation of the facial nerve the paralysis had nearly disappeared and the hearing had greatly improved.

Körner asks how this connection between Herpes zoster and disease of motor and special sense-nerves can be explained. The recorded cases are too numerous for a chance association. Strübing explains facial paralysis with herpes in the area of the trigeminus as due to a spread of neuritis from one nerve to the other through their numerous anastomoses. Lesser accepted this idea, but offered a different explanation for a combination of ocular paralysis with herpes of the trigeminus area. Here Strübing's hypothesis would not explain all the facts, since no anastomosis exists between the trigeminus and the trochlear and abducens nerves. He believes in the extension of a neuritis or perineuritis where the nerves lie close together in the sinus cavernosus. In the case in question such an extension could have occurred in the internal auditory meatus.

WILFRID B. WARDE.

THE PRIMULA OBCONICA ONCE MORE. By A. MODEL. (*Münch. med. Wochenshr.*, January 12th, 1904, p. 65.)

THE patient, a young and sturdy gardener, had suffered for some six weeks from a very irritable eczematoid eruption of papules and vesicles seated on red swollen surfaces. The eruption was present on the forearms, particularly on the flexor surfaces near the wrist, on the thumbs, in the neighbourhood of the eyes, and around the ears. The eyelids, particularly the lower, were oedematous; the conjunctivæ inflamed, and there was undue sensitiveness to light. Some six weeks before he had attended to a number of *Primula obconica* plants, and this was followed a few hours later by itching and burning of the forearm and thumb, and by the appearance of an acute papulo-vesicular eczema. Four weeks after the commencement the ears were affected, and the eyes three to four days later. Model prescribed the use of lead lotion and a weak white precipitate ointment, under which treatment cure rapidly followed.

The *Primula obconica* was brought to Europe from China in 1879 by Walters, and described in the following year by Hance (*Journal of Botany*, vol. xviii). Its poisonous properties have been known since 1889. At first all the cases, mainly in women, were reported from England. Later it was recognised in Germany. The author gives some interesting details. Very few persons appear to be proof against the poison, and such are generally men with skins thickened by labour. A special sensitiveness may exist, so that the subject may be affected by the more innocent varieties, *e. g.* *Pr. sinensis*, *Pr. officinalis*. An increased sensitiveness may lead to a more violent eruption. There may be large bullæ (pemphigus), erysipelas, or impetiginous crust formation. Relapses are common, so that the disease may extend over months. A tolerance does not appear to be established. On the contrary, those once affected become more and more sensitive to the poison. The author recommends a closer study of these cases of poisoning by plants.

WILFRID B. WARDE.

PRIMARY MILIARY TUBERCULOSIS OF THE SCALP. Prof. SPIEGLER. (*Münch. med. Wochensch.*, December 1st, 1903, p. 2125.)

Spiegler showed to the Vienna Medical Society a man with four kreutzer-sized ulcers on the hairy scalp. They were 2—3 mm. deep, with a slimy coated base and an irregular indented border. The man himself was strong and well nourished. There was in addition a Lupus vulgaris tumidus on the buttocks, which developed some months later than the ulcers on the scalp. He maintained that it was a primary inoculation of the scalp, though he had no evidence to show how it was produced. The disease was then transferred to the buttocks. He remarks that it is not at all clear why an inoculation of tubercle bacilli leads sometimes to Lupus vulgaris and at other times to the miliary form of ulcerative skin tuberculosis such as the case exhibited.

WILFRED B. WARDE.

NECROSIS OF THE SKIN OVER BOTH MALLEOLI IN A CASE OF DOUBLE CLUB-FOOT. WILMS. (*Münch. med. Wochenschr.*, December 1st, 1903, p. 2121).

Wilms showed to the Medical Society of Leipzig a baby suffering from an extreme degree of club-foot. At the time of birth there were present over each external malleolus, not the usual pressure points, i.e. smooth round patches with absence of glands and subcutaneous fat, but gangrenous areas. These healed in fourteen days. He had not so far met with a similar case, and considered that it spoke strongly for the causation of club-foot by pressure of the uterus. A photograph is given.

WILFRED B. WARDE.

ON A CASE OF CUTANEOUS SYPHILIS MISTAKEN FOR LUPUS. LEREDDE AND PAUTRIER. (*Rev. Prat. des Mal. Cut. Syph. et Vén.*, Dec. 1903.)

MM. Leredde and Pautrier record the following case as showing that nothing is more instructive to the physician or surgeon than an initial error of diagnosis.

M. X, aged 29, had in the year 1895 a "cold abscess" of the second left metatarsal bone; this was diagnosed as tubercular by Dr. X, who trephined and removed the head of the bone, after which healing was complete in fifteen days.

Three months later the patient had extremely acute nocturnal osteocopic pains in the right tibia. A second doctor, hearing of the previous "cold abscess," diagnosed "tubercular osteitis," and proposed an operation, which was eventually done some few months later by a third doctor in Egypt; but at this operation nothing tubercular was found, and no trace of pus. The healing was speedy, and the pains disappeared.

In 1898, the patient, having returned to France, presented multiple osseous and periosteal lesions: swelling of the frontal, left mastoid (which had to be opened), and left clavicular regions, with pain and redness; the lesions persisted for some days and then entirely disappeared.

In June, 1900, he had cutaneous lesions about the right ankle, with swelling, redness, and infiltration of the integument, but without pain and without the

articular movements being implicated, Another doctor (the fifth), whom he consulted in Lyons, again diagnosed tuberculosis, and confirmed this with *un sero-diagnostic positif*. M. X then went for the winter to Uriage.

In June, 1901, he saw two doctors, (6 and 7), An apparent abscess containing clear serum was opened. M. X now raised the question of syphilis, but was told it was impossible; had he not had a series of tubercular lesions, and had not these been confirmed by *un sero-diagnostic positif*?

In July, 1901, Mr. X consulted another doctor (No. 8), who also said it was a case of tubercle, though he was surprised to find no fistula, and proposed scraping the ulcer, which was refused, and M. X returned to Uriage.

In September he visited again his last doctor, and submitted to a course of cauterisation and injections of camphorated naphthol, etc. The patient now could no longer walk.

During 1902 the lesions gradually developed, invading a large surface about the ankle. In August of that year the patient returned to Paris and consulted the doctor who had attended him in 1895. This gentleman, believing that his original diagnosis was the correct one, proposed deep cauterisations and, if this failed, amputation.

M. X, having meantime heard of the light treatment, consulted MM. Leredde and Pautrier (doctors 9 and 10) with the idea of being treated by the Finsen method. Two radiograms were made; they showed no osseous lesion; all the articular movements were preserved.

July, 1902.—The cutaneous lesions presented the following appearances:—On the outer surface of the lower part of the right leg, the ankle, and back of the right foot were definite lesions characterised by swelling of the skin, infiltration resisting pressure and a violaceous colour. Scattered about were many ulcerations, the largest about the size of a half-franc-piece, cup-shaped, neither edges nor base being particularly soft, and yielding for the most part a serous liquid rather than pus; some lesions were covered with crusts. There was no trace of lupus, nor was there any papillomatous or verrucose condition. The clinical characters not being those exactly of cutaneous tuberculosis, the previous osteo-articular complications having cleared up without leaving any perceptible bony lesion, they were forced to consider the possibility of its being a case of syphilis.

A histological examination was made, and neither giant-cells nor tubercle bacilli found, and an injection of 0·10 centigrammes of calomel was given. This latter proving very painful, injections of hermophenyl were substituted, 0·06 to 0·10 centigrammes. After the fifteenth injection the lesions were greatly changed, the ulcerations had nearly cleared up, and the patient could put his boot on and take long walks without any discomfort. The cure was complete in a month, only a brown pigmentation marking the site of the old lesions.

On careful questioning, the patient remembered that in 1894 he had had on the edge of the eyelid *un bouton*, which lasted for several weeks, and the diagnosis of which had never been properly cleared up. It is possible that this lesion was a chancre.

The pathological history of the case can be easily constructed, and all the lesions successively put down to tubercle owing to the error in the initial diagnosis were specific.

A. SHILLITOE.

THE BRITISH JOURNAL OF DERMATOLOGY.

MAY, 1904.

A CASE OF IMPETIGO CIRCINATA WITH BULLOUS LESIONS ON THE HANDS AND FEET, AND SUBSEQUENT INFECTION OF THE NAIL-MATRICES.

By H. G. ADAMSON, M.D., M.R.C.P.,

Physician to the Skin Department, Paddington Green Children's Hospital.

IN the large majority of cases Impetigo 'contagiosa' presents the well-known picture of irregularly grouped amber crusts interspersed with earlier small vesicular lesions situated chiefly about the central parts of the face and on the occipital area of the scalp. Occasionally, however, under certain ill-understood conditions, possibly differences of soil, of virulence of the infective agent, or of anatomical seat, the lesions may be modified in that the primary vesicle, instead of drying into a crust as rapidly as it extends, may enlarge into a tense bulla; or it may give rise to a flaccid bulla, which dries up in the centre while it advances at the margin, producing a circinate lesion. Such bullous or circinate lesions may sometimes occur in the course of an ordinary impetigo; less frequently they become generalised, forming the varieties of impetigo known as Impetigo bullosa and Impetigo circinata.

Impetigo circinata in its generalised form is not of very frequent occurrence in this country. Colcott Fox (1) related two cases in the *Medical Society's Trans.*, 1884. In the year 1894-5 there was a small epidemic of such cases in England. A case was shown by Abraham (2), in 1894, to the Dermatological Society, and Crocker (3) read before the Clinical Society, in 1896, a paper on "Impetigo Gyrata," referring to the cases he had seen in 1894 and the following

year. He suggested that the variation had developed during, and as a result of, the hot weather of 1893, and compared these cases with *Pemphigus contagiosus* of the tropics described by Sir Patrick Manson. Other examples have since been recorded in America by Schamberg (4) and by Engman (5). Unna, in his *Histopathology* (6), thus briefly refers to this eruption, "Two distinct clinical forms. . . . the first I have called *Impetigo vulgaris*, the latter *Impetigo circinata*. They are distinguished by the fact that the first forms thick voluminous crusts which, by their contact, assume polycyclical forms, while the second shows thin crusts which enlarge by concentric expansion." Crocker (7) describes the lesions as follows:—"The initial lesions vary from a hemp-seed to half an inch in diameter, and form small flaccid bullæ with sero-purulent contents. As they enlarge peripherally they become ruptured with a red areola, enclosing a border raised up by fluid, and within that is a thin, flaky crust of greenish hue, which forms another circle with a ragged inner edge, while the central part in those sufficiently large heals completely." Sabouraud (8), in a recent article on impetigo in *La Pratique Dermatologique*, has the following paragraph:—"Like typical impetigo, this (*Impétigo circiné géographique*) begins by a vesicle, but the centre of the vesicle remains dry; it is an annular vesicle containing only a little fluid; the lesion being little exudative, the crust that forms remains thin and, like the rest of the lesion, little above the skin level. The crust is circinate, and represents the borders of the initial vesicle. It is a dry impetigo; in a few days the lesion has disappeared without leaving any trace. These lesions of so little depth have a remarkable power of extension on the surface."

It will be seen from the above descriptions that *Impetigo contagiosa* is really only a form of bullous impetigo in which the lesions are poor in fluid and have a tendency to rapid superficial spreading. Its clinical relationship with *Impetigo vulgaris* is shown in the fact that in some instances other members of the family have been the subjects of ordinary impetigo. This being so, one would expect the infective agent to be the same. Crocker, however, found staphylococci in his cases, but the growths were made on gelatine bouillon, and the fallacy of using a solid medium is now well known (9). Sabouraud (10) states that in three cases examined by himself "the bacteriological flora was identical with that of typical impetigo," viz. streptococcic.

Under the term *Impetigo bullosa* must be included several other bullous affections formerly considered as separate diseases, but now generally regarded as modified forms of *Impetigo vulgaris*. These affections include *Pemphigus neonatorum*, *Pemphigus contagiosus tropicus*, and certain epidemics of bullous eruption simulating pemphigus (epidemic pemphigus).* Although the bacteriology of these forms has not yet been thoroughly worked out, their clinical relationship with *Impetigo vulgaris* has been amply demonstrated, so that one feels tempted to group them all together as eruptions due probably to the same organism, viz. the streptococcus of Fehleisen, their special characters being due to modifications of soil or of virulence of the infective organism.

I venture to publish the following notes of a case of circinate impetigo not only because it is a good example of this somewhat rare variety, but also on account of the accompanying lesions of the nail-matrices and nails, which presented a condition of which I have been unable to find any previous description or pictorial representation.

CASE.—The patient was a little boy aged 5 years. He had had measles and pneumonia six weeks before. About three weeks later there was some discharge from one ear, and at the same time that this was first noticed there appeared on his legs a rash of small “mattery heads,” followed by “rings” on the legs and body. The child was seen for the first time at Paddington Green Children’s Hospital on January 16th, 1904. The condition was then as follows:—Over the trunk and limbs there was an eruption made up of rings varying in size from a sixpenny-piece to a crown. On the abdomen, lower part of back, and thighs the rings were closely aggregated into groups in which some of the elements touched, while on the arms and legs and upper part of the trunk were more sparsely scattered lesions (Fig. 1). The rings consisted of a central portion, where the skin was of a slightly reddish-brown colour, but otherwise normal in appearance, surrounded by a narrow band of epidermis detached except at its outer margin, and having beneath it a thin crust of

* Most of these epidemics are reported from America: Engman, *Journ. of Cut. and Gen.-Ur. Dis.*, April, 1901; Gourdon, *Journ. Cut. and Gen.-Ur. Dis.*, 1901; Corlett, *Cleveland Journ. of Med.*, December, 1898. Crocker mentions an epidemic noted by Dr. Blomfield; also one by Colrat, *Rev. de Méd.*, December, 1894.

dried exudation. Here and there in many of the rings the raised epidermis at the margin still remained as the covering of a flaccid blister. Between the rings were many millet-seed sized to split-pea sized lesions. The smaller of these were vesicular, while in the larger

FIG. 1.

a flat crust had formed at the centre, leaving only a narrow vesicular margin around it. These vesicles drying up in the centre while the margin advanced, evidently represented the early stage of the larger ringed lesions.

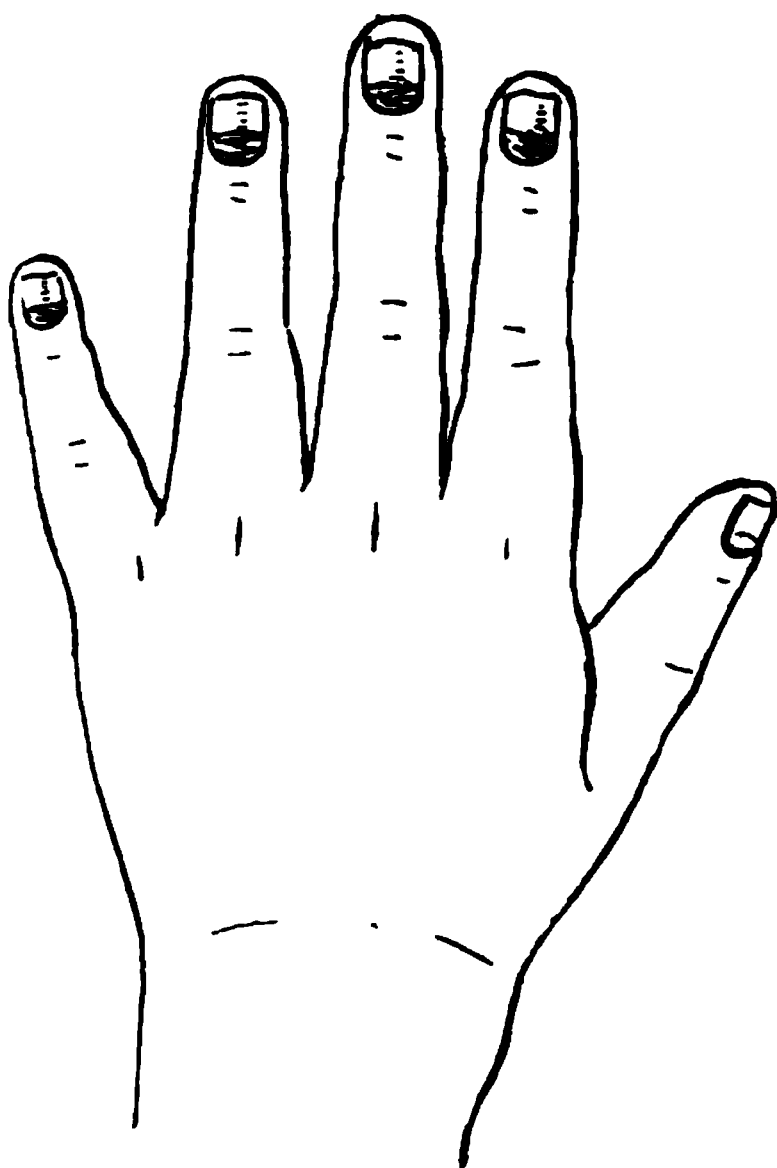
An ointment of white precipitate (gr. v. ad 3j) was ordered, and the eruption had almost entirely disappeared in a week.

The patient was not seen again until February 5th (three weeks later), and the eruption had returned even more extensively than before. The rings then covered the whole trunk so that there was hardly a space left free. In addition on each extremity from the wrists and ankles downwards over the whole hand and foot were thickly set macules, vesicles, and bullæ. The macules were apparently the seat of dried-up bullæ. Many of the bullæ were fully three-quarters of an inch in diameter. They were tense, and their contents were slightly turbid. The severity of the eruption on the soles prevented the child from standing. The large bullæ were opened and frequent baths of boric acid solution were ordered, to be followed by application of white-precipitate ointment as before, and the eruption again rapidly cleared up.

On February 20th the child was again brought to the hospital. The eruption had then entirely gone, but he presented the *following condition of the nails*:—On the first, second, third, and fourth fingers of the left hand the proximal part of the nail for about one-fifth of its whole length—that is to say, the part overlying the matrix—had been destroyed, leaving the rest of the nail loosely attached to the nail-bed. The area thus left between the nail and the nail-fold was occupied by a yellowish-brown crust, very tough, and firmly adherent to the matrix beneath. There was slight redness of the finger around the crust, but no pus nor exudation. Pressure

on the crust or any attempt to raise it from the matrix caused much pain. The right hand was free, but all the toes of the right foot, and the great toe, third, and fifth on left foot were similarly affected. On the thumb of left hand and on one of the toes it was possible to observe the early stage of the lesion. The portion of the lunule next the nail-fold was seen to be opaque and yellowish, and on raising the nail-fold one found a thin, moist, yellowish crust beneath, while the root of the nail itself had already begun to be eroded at its margin. The opaque appearance of the lunule was evidently due to the extension beneath it of the crust. From the nature of the lesions and from the fact that they followed so closely the skin eruption one was led to regard them as a result an "infection" of the nail-matrix (Fig. 2).

FIG. 2.



Bacteriological examination.—Fluid was taken from one of the early vesicles on the trunk, but unfortunately the pipettes were accidentally destroyed, and the eruption had almost disappeared when the patient was next seen. However, portions of the crust from beneath the nail-fold of an affected finger were obtained at a subsequent visit, and film preparations were made by soaking a fragment in distilled water and spreading on a slide. Both stained and unstained specimens were examined, and these showed cocci in twos and many short and a few long chains, some of which contained six to seven elements. There were also groups of cocci. These latter were probably staphylococci, while the chains were undoubtedly streptococci. From another fragment cultures were made on sloped agar tubes, in bouillon tubes, and in capillary pipettes in bouillon. The agar tubes gave apparently pure cultures of *Staphylococcus aureus*; but on examination of films from the bouillon tubes chains of streptococci were found intermixed with groups of staphylococci.

The pipette cultures showed streptococci in still greater abundance.

The case was a typical example of *Impetigo circinata*. The bullæ on the hands and feet were interesting as showing the modification of lesions by the anatomical seat, the formation of bullæ on the hands being due to greater thickness and resisting power of their epithelial roof.

The point of greatest interest, however, was the condition of the nails and nail-matrices. This was evidently the result of infection by the same agent as had caused the skin eruption. On searching the literature of diseases of the nail and of impetigo I could find no previous description of a similar condition. The most detailed account of nail-matrix and nail affections of an impetiginous nature was that of Sabouraud (11) in his original papers on impetigo in the *Annales de Dermatologie*. He there describes what he found to be a pure staphylococcic infection of the nail-bed and the nails (*Onychosis staphylococcic*). This affection is not uncommon, and is probably in its later stages, when the nail becomes attacked, confused with other chronic nail affections of whose ætiology we know so little. Its main features are as follows:—A chronic affection which begins at the angle or at the lateral margin of the nail and forms one or more dry circumscribed abscesses beneath the nail, which, if left untreated, may spread round beneath the whole border of the nail and attack also the nail itself. Usually only one, or perhaps two or three, but never all the nails are attacked, and the lesions, which arise probably from infection of a local injury, are always confined to the hands. Direct examination of the subungual *débris* shows abundant staphylococcic colonies, and pure cultures are easily obtained. In marked contrast to this staphylococcic infection, that which I have just described first attacked the matrix beneath the nail-fold. Taken with the fact that it arose as part of an eruption which recent researches would lead us to regard as of streptococcic origin, and also on account of the findings of streptococci in the matrix lesions themselves, I think there is strong reason to believe that these latter were also of streptococcic origin.

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NOTE ON A SMALL OUTBREAK OF *TINEA TRICHOPHYTINA CRURIS*.

By T. COLCOTT FOX, M.B., F.R.C.P.,

Physician for Diseases of the Skin to the Westminster Hospital, and Visiting Dermatologist to the Ringworm Schools of the Metropolitan Asylums Board.

A FEW years ago a young medical man consulted me on account of an eruption on his groins. The case was a well-marked example of Trichophytosis of the inguino-femoral regions, and the fungus was present in abundance, but attempts to obtain pure cultures failed. He informed me that his brother and two male friends who lived together in the same house had become similarly affected one after the other. I did not see these cases, but the statement of my patient, himself a highly competent medical man, may be relied on as accurate. I could not obtain any clue to the source of infection.

Even apart from exotic forms of Trichophytosis cruris we know little of the nature of the fungus attacking the inguino-femoral region. I have myself cultivated an ectothrix trichophyton, but whether this region of the body, with its special conditions, favours the growth of one particular fungus or several species remains to be worked out. It is at any rate interesting to find several members of a household with an attack localized in the same part of the body.

I have not made an exhaustive search for records of similar outbreaks, but having noted several instances I will refer to them. In a paper on “*Eczema marginatum*” in Bulkley’s *Archives of Dermatology*, vol. iv, 1879, p. 291, Tilbury Fox mentioned a miniature

epidemic. In the course of several months the father, three sons, a daughter, the valet, and a visitor were attacked. The three sons first had ringworm of the groin and axilla; the daughter contracted the disease in the groin, axilla, and about the arms and neck. The original source of the malady could not be traced, but the subsequent spread was conjectured to be by means of the laundry.

At the 179th meeting of the New York Dermatological Society, 1888, *apropos* of a case of "Eczema marginatum," G. H. Fox said he had lately had under his care three brothers in one family with this affection, and in another family two brothers.

In the *Medical News*, February 28th, 1891, p. 239, Stelwagon and Stahl described an epidemic in the Philadelphia Hospital, chiefly among the resident medical staff, but later in its course involving several officials and two or three nurses of the training school. The disease was first noticed in a resident in the month of July and remained limited to him for six or seven weeks. Then it rapidly spread to his confrères, and eighteen of the resident staff, several officials, and several nurses suffered. Only two of the resident physicians escaped, and it was noted both were exceptional in being brunettes. In a few cases the axillæ were also affected, and in one or two others patches occurred on the face, feet, and limbs. The most plausible theory of the infection seemed to be the laundry.

Lastly, in the *Annales de Dermatologie et de Syphiligraphie*, iii Sér, vol. vi, 1895, p. 1191, reference is made to a thesis by Fontrein in which is described an epidemic of Trichophytosis of the genito-crural region, and in some cases also of the axillæ and limbs, in thirty of the pupils of the School of the Marine Medical Service. The epidemic was not at an end when the thesis was written.

CASE OF SYPHILITIC PSEUDO-CONTRACTURE OF THE BICEPS (FROM DR. THIBIERGE'S CLINIC AT THE HÔPITAL BROCA, PARIS).

By J. LEMARE BUNCH.

THE patient, a girl of 17, of no occupation, was admitted to the Broca Hospital on December 30th last. Three months before she had been treated at the Saint-Lazare prison for roseola, mucous patches

of the mouth, and bubo. When admitted to hospital she had an eruption of follicular syphilides on the trunk, the appearance of which was certainly recent, and the distribution of which reproduced that of the roseola which she had had. This eruption increased, and the lesions of the skin became more numerous during the succeeding days, in spite of treatment with *huile grise*, and there were mucous patches on the tonsils. When admitted she complained of no other trouble, except the bubo, which was still suppurating.

On the 15th of January, without any appreciable cause and in particular without any traumatism, she began to experience difficulty in movement and ill-defined pain in the left arm. On the 27th of January she complained that she could not properly extend the left arm, or rather, the left forearm on the arm. Examination showed that she could not extend the forearm beyond an angle of 130° . Attempts to exceed this angle caused intense pain, situated at the upper part of the olecranon. It was possible, however, without any *mechanical* obstacle, to accomplish full extension. In repose, in flexion of the left forearm, the biceps presents a consistence practically identical with the right biceps. When the forearm is extended as far as possible without causing pain, and one attempts to increase this extension, the muscle puts itself in a state of defence, and becomes firmer. The tendon of the biceps is resistant, and its tension augments when one tries to render complete the extension of the forearm. Flexion of the left forearm beyond an angle of 45° is also impossible, and causes great pain when attempted. Pressure causes pain when applied over the upper extremity and internal border of the olecranon; there is no pain when the outer border of the olecranon or any other part of the elbow is pressed. There is no swelling anywhere in the joint. Deep pressure below the outer extremity of the right clavicle also causes pain. There is also a painful spot at the level of the right sterno-clavicular articulation. Pressure on the biceps and on the nerves of the arm causes no pain.

Electrical examination shows that the contractility of the muscles of the arm is normal on the two sides, without trace of degeneration. The resistance to the passage of the current is for the right arm 1500 ohms, for the left arm 6000 ohms, for the right half of the body 6000 ohms, for the left half 10,500 ohms. Pharyngeal sensibility is diminished. The cutaneous sensibility is the same on

the two sides. There is no ovarian tenderness, or hysterogenic point. When anæsthetised with chloride of ethyl the contracture entirely disappears.

She has been treated with intra-muscular injections of distilled water, but is still (April 22nd) in hospital. The myopathy has improved, but in spite of syphilitic treatment she still has follicular lesions of the skin. She has recently developed symptoms of tubercular bone disease of the toe, and has been operated on.

At the meeting of the Société Médicale des hôpitaux de Paris on February 26th a similar case of secondary syphilitic myopathy of the biceps on the left side in a neurasthenic soldier 25 years of age was brought forward by M. Bergounioux. The first appearance of this contracture occurred a month after the commencement of his chancre, while he was making a longish ride, and spending five to six hours in the saddle every day for a period of a fortnight. Inability to flex or extend the left forearm on the arm showed itself, and the wrist could only be moved with difficulty. The contracture disappeared about a fortnight after its onset and about ten days after he had reached his destination. He now went into hospital for syphilitic treatment—proto-iodide of mercury and tonics. Three months after the first appearance of the chancre, and while still under mercurial treatment in hospital, he was given a day's leave on the occasion of a national fête, and he profited by this leave to have a ride, without anything remarkable showing itself. On the evening of the same day, after the ride, while walking with some companions, he found that he could not extend the arm, even with the assistance of the other arm. When examined next morning, movement of the shoulder or attempted extension of the forearm was found to cause acute pain, the biceps contracted strongly and became cord-like, but there was no swelling, and the skin was unaltered. Electrification of the biceps and triceps was very painful, but both this and massage and baths were tried, and ten days afterwards improvement began to show itself.

Whatever the tendency to describe these cases as hysterical, Thibierge is not aware that such cases have anywhere been described as occurring in hysteria, apart from co-existent syphilis. The unanimity with which syphilographers describe it as one of the symptoms of syphilis, and, better still, the constancy of its occurrence at a very limited period of this great infection, in this period of

secondary accidents so fruitful in troubles of all kinds and lesions in all positions, make one hesitate to regret the predominant influence of syphilis. Syphilis apparently intervenes not to produce directly a muscular alteration, but rather by an intermediate lesion to act upon the muscle reflexly. It seems possible to assign the rôle of active agent to the lesions of peri-articular fibrous tissues and periostitis which are relatively so frequent in the secondary period of syphilis, and which give rise to painful spots and points tender to pressure. With such a pathology, there is no need to regard as inexplicable the slow, or even problematical, action of mercurial treatment on this myopathy of the biceps, and if any manifestation can truly be described as parasyphilitic it is assuredly this. As regards nomenclature, one cannot do better than call it myopathy or pseudo-contraction of syphilitics.

SOCIETY INTELLIGENCE.

DERMATOLOGICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Wednesday, April 13th, 1904, Dr. J. A. ORMEROD in the chair.

The following cases and specimens were exhibited :

Dr. GRAHAM LITTLE showed—

1. A case of *Syphilis* in a young medical man, engaged in hospital practice, in whom the disease had developed without any primary lesion of any determinable kind having been noted. This gentleman had held his office for three months, and had had in the course of his duties to attend some cases of congenital syphilis with condylomata, about two months previous to the eruption coming out on his body. But no inoculation locally had been noted. The eruption had appeared, three weeks before the date of the meeting, as a finely scaly rash which was at first thought to be a seborrhœic dermatitis, but in the course of a week the eruption had assumed characters typical of secondary syphilis. The glands of the neck, both in front and behind, and the glands in the axillæ and the groin were all perceptibly enlarged. There had been a feeling of malaise and

headache for two weeks before the first appearance of the rash. The case was shown partly in order to obtain the consensus of opinion of the meeting, the diagnosis being of such importance in the individual circumstances of the case.

A microscopical examination of one of the papules had been made. The section showed much dilatation of the blood vessels, but no granulomatous infiltration into the corium. It was, however, perhaps early to expect to find this.

The universal opinion of the meeting was recorded in confirmation of the diagnosis offered. The complete absence of a primary sore, though exceptional, was not unrecorded. A suggestion was made that possibly the virus had been swallowed, or inoculated directly into the blood-stream in some operation undertaken in the performance of his duties.

2. A case of *Adenomâ sebaceum* of the "type Pringle" (Darier) in a girl aged 12 years. The eruption, which had been noted at birth, consisted of very numerous vividly red tumours, the size of a millimetre in the majority of lesions, in one or two exceeding this. They were distributed thickly over the anterior surface of the nose and on the skin covering the fleshy prominence of the levator nasi et labii superioris on each side. The lesions did not occur externally to an imaginary line drawn vertically downwards from the centre of the pupil of each eye. In these positions the tumours were so vascular as to justify the name given to this disease by older authors ("végétations vasculaires" of Rayer, "nævi-vasculaires et papillaires" of Vidal). On the upper lip and on the forehead there were a few scattered lesions, not red, but rather a buff colour, approximating to the "type Balzer" of French authors. There were no moles or pigmented patches on the body, but several small fibromata, as described by Dr. Radcliffe-Crocker, were found on the trunk. One, the size of two millimetres, was to be seen half an inch to the left of the mid-line of the vertebral column, at the level of the seventh dorsal spine; there was another in a vertical line with this lesion, but at the level of the first lumbar vertebra; a larger lesion, the size of a three-penny piece, was found on the right buttock, and this was slightly vascular also. There were in all about ten such fibromata scattered about the body. On the trunk in the neighbourhood of the spinal column there were patches of rough skin like mild Lichen spinulosus. The girl was somewhat thin but on the whole well-grown for her age,

and there was no trace of any mental deficiency ; she was in fact rather advanced in her school-work. It was proposed to treat the tumours by electrolysis.

3. A case of *Lupus vulgaris* of the nose and right cheek in a girl about ten years old, who had had injections of tuberculin antitoxin (No. 1), under the supervision of Dr. Wright. It was interesting to record that although the lesions were almost certainly tubercular as far as clinical diagnosis could determine, there had not been the slightest reaction with the injections. Of these two had been given, at first of a quarter, and then of three-quarters of a milligram, with an interval of a fortnight between the injections. In another case of *Lupus vulgaris* in a boy of 15, injected with half a milligram of the same tuberculin, an immediate reaction, both local and general, had been obtained.

Dr. RADCLIFFE-CROCKER suggested that the reaction had failed to appear possibly because the dose had not been sufficiently large, and perhaps, also, the sites chosen, the flanks, were too remote from the lesions to affect these locally.

4. Sections from the case of Paget's disease of the nipple shown by Dr. Herbert Stowers to this Society on more than one occasion. The patient, an old woman of over eighty when she at last died, had had the disease for fifteen years or more. The section had been cut from the edge of the diseased breast from tissue obtained after death, and showed very typically the characteristic vacuolation of the basal layer of the epidermis, and the downgrowths of epithelium into the corium.

5. Sections from the case, shown by the exhibitor at the March meeting of the Society, of small indeterminate tumours of the skin of the neck in a little girl. On that occasion the case had been shown as possibly an instance of hypertrophy of sebaceous glands (Radcliffe-Crocker), but no diagnosis had been generally accepted. The histological appearances negatived the diagnosis offered, but the nature of the case was still puzzling. There seemed to be an area immediately below the papillary zone in which the collagen bundles stained differently to the collagen in other parts. It was possible that this indicated a degeneration of the collagen in patches corresponding to the position of the tumours. Further investigations would be made as to this point. There was no implication of the sebaceous or sweat-apparatus.

Dr. J. A. ORMEROD showed (1) a boy aged 9, who presented a good example of the condition known as *Lichen pilaris* or *Lichen spinulosus*. The neck was covered with filiform projections. There were small papules on the extensor aspects of the arms and upon the thighs, apparently connected with the hair-follicles. In the neighbourhood of the knees there were much reddened and thickened areas of skin. The present outburst had lasted for two months, but he had been an in-patient in St. Bartholomew's Hospital last Christmas, suffering from a similar attack. But the appearances were more marked and more extensive. He apparently recovered from this attack of the disease after a course of treatment by means of the application of salicylic acid ointment and daily shampooing.

The case was shown as a good example of the way in which the chronic inflammatory papules resulting from *Lichen pilaris* may come to simulate certain of the lesions of *Lichen planus*.

(2) A man showing an unusually well developed *fine papular syphilide*. He had contracted primary syphilis in December last, of which there was complete evidence. The scar of the primary lesion was still present, there were enlarged glands in the groins, neck, and elsewhere, the hair was falling and his voice was husky, although no definite lesions could be observed in the fauces beyond general congestion. The trunk and the limbs were covered with a profuse eruption of small firm papules, many of which were scaly. In the flexures of the elbows, and still more so in the flexures of the knees, the rash was more diffuse and blotchy, and a considerable amount of pigmentation existed in the latter situation. In certain areas the papules appeared to have a grouped arrangement. The face, neck, and hands were free from the eruption, as was also the skin from the back of the arms and over the pronator group of muscles of the forearms. On the buttocks the patches resembled a confluent eruption of *Lichen planus*.

Dr. F. J. POYNTON brought forward a remarkable case of what appeared to be *multiple linear hard nævus* undergoing a certain degree of spontaneous involution. The child, aged three months, was born with an eruption upon the hands, feet, and legs. Except for a history of phthisis on the mother's side, there was no noteworthy condition in the family history. There was especially nothing to rouse a

suspicion of syphilis in the history of the mother. This child was the second of the family, the elder is quite healthy, but the patient is puny and has been affected with definite snuffling, but there is no other evidence of congenital syphilis. The history of the skin lesion, as given by the mother, was that it had been noticed from birth. Some of the patches disappeared, while others and larger ones appeared during the first month of life. During the second month none of the lesions, so far as she was aware, had disappeared, but fresh lesions had appeared upon the feet and toes. She noticed the sequence of events in some of the patches on the hands and feet. A red circle formed round the patch, then the top peeled off, leaving the underpart red and hard. This surface did not bleed, but in about a week it turned white. On this indurated and thickened area were developed warty excrescences of the type familiar in the linear nævus, except that they seemed to be of more rapid growth. The whole process indeed suggested a more rapidly developing condition than was usually the case in the congenital linear nævus.

The eruption was distributed as follows : it was confined to the left upper and both lower limbs. On the left upper limb it was most marked on the knuckles of the third, fourth, and fifth fingers, and on the dorsum of the middle and ring fingers. On the middle finger it was situated on the dorsum near the ulnar aspect, reaching to the first interphalangeal joint, and as a slight reddening of the skin to the second interphalangeal joint. On the ring finger it reached the base of the nail, extending along the radial side of the dorsum. There was a very slight redness and thickening of the skin on the radial side and dorsal aspect of the thumb and index fingers.

On the lower limbs the soles of the feet were free. On the right leg there were fading patches on the inner surface of the thigh, a recent lesion on the outer aspect of the knee, and recent patches over the external malleolus extending forward along the dorsum of the fourth and fifth metacarpals, and on the fourth and fifth phalanges ; and above the right malleolus and about the back and side of the calf there were both recent and fading patches. On the left leg there were a few faded spots on the inner surface of the thigh, and a more or less continuous chain extending from the middle of the back of the thigh to the dorsum of the foot ; this band curved forward to the anterior aspect of the leg, reaching the front at the level of the head of the

fibula. There were also a few scattered patches about the back and inner surface of the left calf.

The eruption had no particular relation to any one nerve in its distribution.

The eruption consisted of warty raised excrescences, in some positions arising two to three millimetres above the level of the healthy skin. The warts were deeply fissured, and as a result had a papillomatous appearance. The top layers were naturally white, but on the hands were ingrained with dirt and thus looked darker than elsewhere. They were attached to the skin by a broad base. The skin around them was not reddened. For the most part they occupied a stripe-like distribution from the proximal to the distal ends of the limbs, each band being roughly a quarter of an inch in breadth. In some positions the skin immediately in the neighbourhood of these bands was depressed so that they appeared to run in shallow grooves. Upon the abdomen two inches above the anterior superior spine of the right ilium was a vascular cutaneous nævus about the size of a florin.

Mercury had been administered because of the puny condition of the patient and on account of the well-marked snuffling, but a month of the treatment has not brought about any material change in the condition of affairs.

The peculiarity of this case consisted in the fact that the eruption, though widely distributed on all the extremities, had in many respects the appearances of an ordinary linear nævus, differing perhaps in the acuteness of the process. In many parts, however, the verrucose excrescences seemed to have fallen off, and in their place remained indurated nodules in the skin, while in a few places the induration was exceedingly slight, so that the area previously occupied by the epithelial excrescence resembled a patch of early sclerodermic skin. The suggestion arose of the relationship between the congenital defect of development described as linear nævus and scleroderma distributed in segmental areas.

Mr. ARTHUR SHILLITOE showed a case of *papulo-squamous syphilide*. The disease was acquired at the beginning of October, 1903, and six weeks later he attended the Lock Hospital with phimosi, concealed chancre, and indurated inguinal glands. A fortnight later he had

a marked roseola, and shortly before Christmas the present condition started. The older parts of the eruption, situated on the outer parts of the arms, the flexor aspect of the forearms, the thighs, and behind the knees, consisted of large rings, the papules forming the margins of which were concealed by bright silvery scales. Many of the smaller and more recent papules, as seen especially over the spinal column, were distinctly umbilicated.

Dr. WILFRID WARDE showed a case of *Lichen planus annularis*. The patient, a male aged 31, had had the complaint for two years. The eruption was present on the outer aspect of each leg, near the head of the fibula in the form of hypertrophic violaceous patches that showed some superficial ulceration. There was a complete ring on the inner aspect of the left thigh and on the outer aspect of each elbow. The disease affected the scrotum in the form of raised plaques and well-defined rings. The mucous membrane of the mouth was not affected. At the age of twelve this patient had had a red eruption on the legs that lasted two years.

THE DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

A MEETING of this Society was held on Wednesday, March 23rd, 1904, Dr. STOWERS in the chair.

The PRESIDENT announced that Dr. H. G. Brooke had kindly consented to deliver the oration at the Annual Meeting, to be held in May, on "The Clinical Relationship of Seborrhœa," and that the Society would dine together after the meeting; due notice of the dinner would be sent to each member.

The following cases were exhibited :

Dr. EDDOWES showed a case of extensive acute *squamous Eczema*. The patient was a married woman, aged 55, of apparently strong constitution but addicted to alcohol; she had been married fifteen years but never pregnant, and there was no history of syphilis. There was an account of a liability to slight attacks of what was called eczema for the last fifteen months, and an attack of what was called erysipelas two months ago. The lesions consisted of single or confluent, nearly

circular, well defined, slightly raised, finely squamous, and very bright red patches. When any single patch had acquired the size of half-a-crown there were indications of exudation and coarser degeneration, forming rather dry, big scales or crusts just in the centre. On the fronts of the legs there were huge patches having much the appearance, at first sight, of psoriasis, but the scales were large, dirty yellow, and loosely attached. The distribution was strikingly symmetrical on the limbs, trunk, arms, and face. It was probable that the attack called erysipelas had been of the same nature but more erythematous than the present outbreak. The reasons for exhibiting the case were numerous.

Some medical men who saw the case when it first came under treatment were inclined to consider it one of psoriasis, others pityriasis, others erythema. The probable explanation of the condition was as follows:—Pityriasis commencing might have passed on to the more typical psoriasis had not the patient's skin easily become erythematous, owing to the internal toxin (in her case alcohol), and this erythema being so great and so persistent, had led to exudation in the central older portions, and so converted what might have been psoriasis into eczema. The circulation in the legs being not so good as in the arms, the exudation had taken place more freely and occurred all over the patches on the legs, while on the arms it had taken place only in the central portions. On the face there were no crusts formed, probably because the venous return was even better. Microscopic sections had been prepared from a portion of skin taken from the margin of a fresh lesion, and they showed that from the first the condition was that of eczema. Dr. Eddowes promised to show these preparations at the next meeting, as he thought they would prove instructive and interesting.

Dr. GRAHAM LITTLE showed (1) a case of *Purpura hæmorrhagica* in a female child aged 13 months. She had been fed on the breast, but the mother had menstruated throughout lactation, and the child was obviously rickety. There was, however, no scurvy in that the gums were not bleeding, and there was no enlargement of the joints, and no pain in handling the child. The purpuric eruption had made its first appearance on the temples fourteen days ago, and had developed very rapidly, the distribution being thick within twenty-four hours, and

the lesions being found on the mucous membrane of the hard palate as well as over the greater part of the trunk. The spots were about the size of a split pea, and were perfectly flat. The child appeared pretty well in other respects, and no definite cause could be assigned for the eruption except the rickets.

Mr. PERNET pointed out that purpuric eruptions in rickety children depended probably on the same factors that led to Barlow's disease. They were of toxic origin, the difference in severity being a question of degree.

(2) A case of *Prurigo of Hebra* in a boy aged 10, who was said to have had the eruption since early infancy. The papules distinctive of this disease—small pale elevations on harsh dry skin—were typically present; the distribution of the eruption, though not very copious, was characteristic, and the glands were markedly enlarged. The boy had been an in-patient on several occasions, and had always improved rapidly on treatment with rest in bed, but had always speedily relapsed on leaving the hospital. The eruption was intensely itchy, and the general misery endured by the patient realised very closely the graphic description by Kaposi of the discomforts of this disorder. The child was of English parentage, and there was no history of neurosis in the family.

Dr. STAINER suggested the use of thyroid extract in these cases over a prolonged period. Other members concurred with this suggestion.

Dr. EDDOWES had noticed in several of these cases an abnormal growth of downy hair on the forehead.

The PRESIDENT remarked that it might interest some members of the Society to hear that previous to 1896 this disease was not generally recognised in this country as a substantive disorder; he was associated with the late Mr. Marrant Baker in collecting several cases for the Dermatological Congress, which was held in London that year, when its identity was fully established.

Dr. RUTHERFORD showed (1) a woman, aged 25, with *Lichen planus*. The papules on the flexor aspects of the wrists were typical, flat, angular, red, raised, glistening, and umbilicated. Those on the outer side of the right knee were pigmented and ring-like, while those over the ankle were hypertrophic. The lesions caused no irritation and were of three months' duration.

(2) A case for diagnosis which he exhibited at the January meeting as *Lichen planus*. Since then the boy, aged 17, had been treated

only with mercury, the previous external application being given up in order to test the treatment more accurately. Little or no perceptible change had been effected on the papules, and only the slightest exfoliation of the white plaques on the buccal membrane. Dr. Rutherford held that this result supported his previous diagnosis of Lichen obtusus, while the members were again about equally divided in opinion between Lichen planus and Syphilis.

Dr. EDDOWES said the lesions had much in common with Lichen planus, but as the surfaces were nowhere flat the term Lichen obtusus would be more appropriate; but there was another possibility, namely, that the case might prove to be one of Unna's *Parakeratosis variegata*. There was, indeed, a tendency to assume the typical variegated red, finely scaly appearance of that disease on the back of both hands. He suggested that a nodule should be excised and microscopically examined, as that would probably clear up the nature of the case.

Mr. ARTHUR SHILLITOE showed (1) a *syphilitic eruption of the corymbose type*. The case, aged 29 years, was sent to the Lock Hospital by the military authorities on his discharge from the Army last May, as possessing "gross lesions on the face, unsightly and unfitting him to be seen in the public streets."

He gave the following history:—His father died, aged 54, of phthisis, a brother aged 26, and two sisters, one aged 21, died of the same complaint. His mother, aged 63, and one sister, aged 18, are alive and well.

He is a fairly well developed man with a clear white skin, has been a total abstainer for ten years, and his discharge sheet was marked "Without crime in the Army."

From January to April, 1896, he was laid up with dysentery in India. Towards the end of May he had a chancre on the penis, which appeared one month after intercourse; he was treated for one month and then had a relapse of fever. In 1898 he went with his regiment to South Africa and was laid up for three months with enteric and then invalided home. In January, 1903, he acquired a fresh chancre, which was followed by sore throat and roseola in March; he was treated in the Portsmouth Military Hospital for three months, when he was discharged the service and sent on to the Lock Hospital. The eruption, as seen to-day, is chiefly confined to the back, arranged in groups, each of which consists of a central papule surrounded by attendant satellites. It has been particularly obstinate

to treatment, only showing marked signs of improvement during the last three weeks.

(2) A man aged 61 years with early *Syphilis*.

The chancre appeared three months ago, just four weeks after infection. He attended the Lock Hospital last January with phimosis, very indurated inguinal glands, and an almost universal irritable eczematous eruption; he is improving, and the condition was probably a mixed one of scabies and syphilis.

Mr. WARREN TAY sent a boy, aged 17 years, with a group of small *pigmented depressions* on the bridge of his nose.

The PRESIDENT said the condition was probably congenital.

Mr. HITCHEN thought it a form of *Acne keloid*.

Dr. HARRISON suggested the possibility of it being an early stage of *Rodent ulcer*.

Dr. ALFRED EDDOWES observed there were large hairs situated in the widely dilated follicles. He looked upon the disease as one of chronically infected, hypertrophied, patent, foetid sebaceous cysts. The patient stated that he could squeeze out offensive material from the lower and older aperture. Dr. Eddowes said he thought that it was a species of suppuration in which the cyst-wall was not obliterated and that these formed what he had termed "cutaneous cess-pools," which were full of a variety of micro-organisms, and often contained most foul-smelling fatty matter.

CURRENT LITERATURE.

ON LUPUS VULGARIS. W. SCHIELE. (*Archiv f. Dermat. u. Syph.*, December, 1903, lxxvii, p. 337.)

IN this paper a critical summary is given of fifty cases of Lupus vulgaris from the clinic of Professor v. Petersen, of St. Petersburg. The cases were first examined with a view of determining in how many of them tuberculosis of other organs was present. In ten cases the lung was found to be involved, in two the joints were affected, in one *tabes mesenterica* was present, and in twenty-two there were enlarged glands. Fifteen of the cases (30 per cent.) presented no signs of tuberculosis beyond the lupus. These observations correspond closely with those of several other writers. For example, Renouard found tuberculosis of other organs in 50 per cent. of his cases, Haslund in 60 per cent., and Block in 75 per cent. The writer considers that Lupus vulgaris is either the result of an infection of the skin with tubercle bacilli from within through the lymph-stream in an individual with tuberculosis elsewhere, or it is simply due to a local infection of the skin. When the skin is infected from without an abrasion of the surface has occurred and the wound has become infected, possibly from sputum. Auto-

inoculation is the commonest method for lupus to be set up and spread from place to place. An instructive case is quoted in this connection, in which a young girl, the subject of broken-down tubercular glands, had her right ear pierced for an ear-ring, and a few weeks later a small focus of *Lupus vulgaris* developed at the puncture. A consideration of the parts affected in the cases showed that it was rare for covered regions to be attacked, and that of the exposed parts the seat of predilection was the nose, which was affected in twenty-three of the cases, while the cheeks were first involved in eleven of them. The junction of the mucous membrane of the nose and skin was frequently attacked, and the nasal mucosa was very apt to be involved, since it was susceptible to catarrh, and tubercle bacilli inhaled then were liable to set up lupus. In a considerable proportion of the cases a family history of tuberculosis was present, and a certain proportion of the cases died of tuberculosis elsewhere.

J. M. H. M.

ON THE HISTOLOGY OF PEMPHIGUS VEGETANS. ST. WEIDENFELD. (*Archiv f. Dermat u. Syph.*, December, 1903, lxvii, p. 409.)

THE case on which this paper is based is that of a woman, aged 30, who suffered from *Pemphigus vegetans*, affecting chiefly the face, scalp, and the mucous membrane of the mouth. The skin in the neighbourhood of the nose was covered with hæmorrhagic crusts of the consistence of honey. These resulted from the union of crusts produced by small vesicular lesions about the size of lint-seed. The chin and upper lip were similarly affected, and the small lesions tended to have a circinate arrangement. Inside the mouth the mucosa of the lips and the tip of the tongue was thickened, and that of the inside of the cheek opposite the teeth presented a pad-like swelling; miliary sized vesicles were present on the palate and uvula, and three epithelial growths were noted on the hard palate. On the scalp there were two gulden-sized, crusted, papillated plaques. On the left great toe there was a crusted lesion about the size of a hazel-nut, and the nail-fold was hæmorrhagic. In all these situations when the crusts were picked off the underlying epidermis was found to have proliferated and to have a papillated appearance. As the disease progressed groups of vesicles came out on the elbow, and on involuting left an appearance like *P. foliaceus*; others, larger in size, developed on the palm of the left hand, on the genitalia, and later, on the shoulders and soft palate. The patient meanwhile was suffering from severe cardiac disease, with mitral stenosis and aortic incompetence, to which, combined with the skin affection, she gradually succumbed about four months after coming under observation. A histological examination showed that the following were the stages in the evolution of the lesions:—(1) The formation of a vesicle on the epidermis or epithelium; (2) the formation of an intra-vesicular or intra-bullous vegetation from a proliferation of the underlying epidermis; and (3) the participation of the corium in the formation of the papillated growth by a dilatation of the blood-vessels and an inflammatory infiltration in the papillary layer.

J. M. H. M.

ON THE SO-CALLED JUSTUS HÆMOGLOBIN TEST FOR SYPHILIS. LEON FEUERSTEIN. (*Archiv f. Dermat. u. Syph.*, December, 1903, lxvii, p. 363.)

THIS communication records an extensive critical research on the value of the

hæmoglobin test of Justus in syphilis. It will be unnecessary to go into detail regarding the so-called Justus hæmoglobin test, as that observer contributed a paper to the *Brit. Journ. of Dermat.* (1897, ix, p. 53), in which the details of the test will be found.

It is now eight years since Justus published his six postulates, by means of which he maintained that the diagnosis of syphilis in a doubtful case could be made good. Although certain dermatologists consider the test to be of value, it has not met with anything like universal acceptance. Apart from the correctness of Justus's test, which the writer's experience leads him to doubt, Feuerstein is at one with Grawitz and Biernacki in believing that even although his results had agreed in the main with those of Justus, he would have regarded them as of doubtful value in the diagnosis of syphilis, since he considered that the variations in the percentage of hæmoglobin in the blood in a syphilitic patient, and especially when under mercurial treatment, were far too irregular to be of diagnostic importance.

With the view of deciding the value of the Justus test the writer carefully examined the blood of forty-five patients suffering from syphilis, to whom mercury was being given in large doses, in some cases by inunction and in others by intra-muscular or intra-venous injections of sublimate. About 500 estimations of the percentage of hæmoglobin were made in these cases. In the majority of them the amount of hæmoglobin, as estimated by a Fleischl's hæmoglobinometer, seemed to remain about normal, but towards the end of treatment there was a tendency to a slight increase. The action of the mercury on the hæmoglobin-curve was very inconstant, and the diminution which occasionally occurred was never more than 20° in Fleischl's scale, and usually considerably less; and the writer considered that a variation of less than 10° was negligible. To go into greater detail, out of thirty-two cases of acute syphilis under treatment with mercury, in four cases (three of secondary and one of tertiary syphilis) there was a diminution in the hæmoglobin of about 10°; in twenty-six cases there was either no variation or it was slight, there being a rise or fall of not more than 5°; and in two cases of secondary syphilis there was a rise of 10°.

In seven non-syphilitic cases, five showed either no variation or a slight diminution of the hæmoglobin when mercury was prescribed, one showed a distinct increase, and another, a case of gonorrhœa, a sinking of 10°.

Since he had employed the test in forty-five cases and found that only in five of them there was a distinct diminution of hæmoglobin, and that in three there was a decided increase, while in the others there was no definite change, the writer concluded that there did not exist a hæmoglobin reaction in the Justus sense; and because in the five cases in which the reaction was positive, one of them did not suffer from syphilis he argued that the reaction could not be regarded as a definite indication of the disease.

J. M. H. M.

ON BACILLI FOUND IN SYPHILIS. L. WAELSCH. (*Archiv f. Dermat. u. Syph.*, January, 1904, p. 178.)

AFTER an extensive *résumé* of the literature on the subject, with special reference to the micro-organism described by v. Niessen, the writer gives

the results of a series of bacteriological examinations which he made in syphilitic patients. Out of thirty-five cases of active syphilis in the secondary stage, a bacillus similar to that of v. Niessen was detected in the blood in twelve cases. In five cases there was a bacillus which formed peculiarly delicate cultures, in four cases both of those bacilli were found, in three cases there was a large yellow diplococcus; but in eleven cases the blood remained sterile. The gummatous syphilides all gave negative results. He thus found v. Niessen's bacillus in less than half his cases of secondary syphilis, and considered that it had no ætiological connection with the disease, and should be regarded "not as the bacillus of syphilis, but as a bacillus in syphilis."

J. M. H. M.

ON ATROPHIC LICHEN PLANUS. W. REISS. (*Archiv f. Dermat. u. Syph.*, January, 1904, p. 137. Two Plates.)

THE writer describes here a typical case of Lichen planus atrophicus in a healthy man, aged 21 years, affecting the neck, thorax, and flexor aspects of the extremities. This disease was first described by Hallopeau with the title of Lichen atrophicus (seu sclerosus), and is familiar in this country from cases reported and demonstrated by Radcliffe-Crocker, Marrant Baker, Stowers, Vinrace, and a number of other observers. A coloured drawing of a patch of affected skin showed a brownish to brownish-red network, enclosing islands of yellowish-white skin. The brownish atrophic areas present numerous whitish strips corresponding to the folds of the skin, and these strips were broken up by puncta situated at the mouth of the skin-glands and hair-follicles. There was also a number of isolated, flat, polygonal, shiny papules, which were reddish or brownish-red in colour, and some of them were surrounded by a sepia-coloured halo.

A microscopical examination revealed an irregular thickening of the stratum corneum and a thinning of the Malpighian layer. The papillæ had not diminished to the extent to which they usually do in Lichen planus. There was an infiltration of rounded cells in the corium, but the writer was unable to decide whether they were lymphocytes or small plasma-cells. There was an increase of pigment in the cells of the basal layer of the epidermis and in the papillary and subpapillary layers of the corium. The pigment was present both within and around the cells, but there were no definite collections of it in association with the blood-vessels.

J. M. H. M.

LYMPHANGIECTASIS OF THE CHEEK. C. BRUHNS. (*Archiv f. Dermat. u. Syph.*, January, 1904, p. 147.)

THE case here reported was that of a woman who sought relief at Dr. Lesser's clinic in Berlin on account of a peculiar affection of the mucosa and underlying tissues of the cheeks. When she presented herself for examination a swelling was noted on the left submaxillary region. This swelling gradually faded away above the cheek, but the skin of that side of the face presented a bluish-red tinge. The mucous membrane of the cheek was studded by a number of nodular swellings, raised about $\frac{1}{4}$ cm. above the surface, and separated from each other by irregular furrows. These nodules were present chiefly at the back of the left cheek in the neighbourhood of the molar teeth. The affected mucosa had a

bluish tinge. The condition had existed for several years, and appeared to have remained stationary since then. A piece of tissue was removed from the inside of the cheek for histological examination, and the following characteristics were noted:—The sections presented a large number of variously sized lymph-spaces situated chiefly in the subpapillary layer, but extending up as far as the Malpighian layer. These spaces were lined by a single layer of endothelium, and they contained clusters of lymph-cells. Between the lymph-spaces a circumscribed cellular infiltration was detected, which was made up of lymphocytes and plasma-cells. Within the spaces and between them a giant-cell formation was here and there observed. The cellular infiltration the writer believed to be mainly derived from the endothelial cells, and considered that a degenerative process was present in the lymph-vessel walls, which resulted in the lymph-angiectasis, and occasionally in the formation of lymph-thrombi. The paper is illustrated by a series of coloured drawings of microscopical preparations.

J. M. H. M.

TO OUR KNOWLEDGE OF THE TUMOURS OF THE SEBACEOUS GLANDS. R. KOTHE. (*Archiv f. Dermat. u. Syph.*, January, 1904, p. 33.)

MONTI differentiated two types of Adenomata sebacea, namely, Adenoma sebaceum disseminatum (the type described by Pringle and others) and Adenoma sebaceum circumscriptum, the small sebaceous tumours which are apt to ulcerate and to go on to malignant degeneration. The case described by Kothe occurred in the clinic of Professor Posselt at Munich, and belonged to the first variety. It was a case of Adenoma sebaceum disseminatum in a man aged 33, which was first noted when he was four years old. The eruption on the face was typical of the disease, and was situated chiefly about the nose, upper lip, chin, and forehead. It consisted of small pin-head to hemp-seed sized papules, which were yellowish or brownish-red in tinge, and many of them were surmounted by telangiectases. There was also a number of small shiny lesions. The skin of the nose and cheeks was hyperæmic. On the inner side of the arms and on the shoulders there were lesions similar in type to those on the face, and a few of these had run together to form elongated warty masses.

A microscopical examination of the larger lesions on the face seemed to show that the tumours consisted in a new formation of sebaceous glands, with a hypertrophy of the surrounding fibrous stroma.

J. M. H. M.

ON THE PATHOLOGY OF THE SYPHILITIC INITIAL SCLEROSIS OF THE PENIS. EHRMANN. (*Archiv f. Dermat. u. Syph.*, January, 1904, lxxviii, p. 3.)

THE material for this histological examination consisted of prepuces which were the seat of initial lesions of syphilis, and which had been removed by a circular incision. The blood-vessels of the prepuces were injected with the Berlin blue injection-mass, and the lymphatics with dialysed oxide of iron, by inserting the injection-needle beneath the epidermis. The technique for doing this is elaborate, and is minutely described. The tissue was then hardened, embedded, and cut, and the sections were stained with Czokor's alum-carmin. In this way the

nuclei were stained red, the fibrous tissue yellowish-red, the large blood-vessels and capillaries blue, and the lymphatic vessels yellowish in colour, giving a marked contrast. The paper is illustrated by a series of drawings of microscopical specimens. The conclusions arrived at by the author may be thus briefly summarised:—The first changes are noticeable beneath the epithelium at the site of inoculation, and these consist of a new formation of blood-capillaries and a cellular infiltration around them. By the gradual spreading of the virus into the tissue-spaces in the neighbourhood the lymphatic vessels next become involved, and infarctions of lymphocytes occur in them. The cellular infiltration, by making its way into the surrounding lymph-spaces, gives to the lesion its clinical character of induration. Retrogressive changes next supervene, which end in the disappearance of the nodules of infiltration in the tissue-spaces and the infarcts in the lymphatic vessels. The softening which occurs in these foci of infiltration is not a necrobiosis, or a granular destruction, or a caseation, but an involution through a fatty change. This fact was demonstrated by staining the sections with osmic acid. The lymphatic infarctions are regarded by the author as an effort on the part of the tissue to prevent the spread of the syphilitic virus or toxin.

J. M. H. M.

ON THE TREATMENT OF VARIOUS FORMS OF CUTANEOUS DISEASE BY THE X-RAYS AND LIGHT. W. ALLAN JAMIESON.
(*Scot. Med. and Surg. Journ.*, February, 1904, p. 97.)

IN this contribution Dr. Allan Jamieson gives his experience of the value of the treatment of various skin affections by X-rays and light. During the last eighteen months he has had under treatment 133 cases of Lupus vulgaris, the large proportion of which were treated by the X-rays, but some exclusively and a large number partially by the Finsen light. There were also 30 cases of favus, 21 of rodent ulcer, 12 of sycosis, and 2 of Mycosis fungoides which were dealt with entirely by means of the X-rays. In all the cases in which the treatment was persevered in a marked benefit, if not a complete cure, resulted.

The form of lamp employed in the lupus cases was the London Hospital modification of the Lortet-Genoud lamp. The treatment by light the writer regarded as superior in the case of lupus to that by the X-rays, since it did not give rise to burns, but inferior in being more restricted in its applicability and slower. It will be remembered that some months ago Dr. Jamieson suggested the employment of compresses of adrenalin to produce anæmia before exposing the diseased patch. This procedure he has now abandoned since he found that the "exaltation in effect was not at all commensurate with the expense." With regard to the treatment of rodent ulcer by the X-rays, the writer's experience coincides with that of other observers, and he has obtained brilliant results. To shorten the time of treatment he advocates the removal of as much of the growth as possible by scraping supplemented by the application of chromic acid fused on the point of a probe, and applied to small areas at a time.

The writer is to be congratulated on the excellent results he has obtained in the treatment of Mycosis fungoides by the X-rays. For it is the first form of treatment which has proved itself capable of arresting this otherwise hopeless disease.

J. M. H. M.

HYSTERICAL NEUROSES OF THE SKIN. A. VAN HARLINGEN.
(*Journ. Cut. Dis., including Syphilis*, September, 1903.)

VAN HARLINGEN contributes a further *résumé* of contributions to our knowledge of this subject made since the publication of his former papers in 1897. The author admits that in a few cases self-infliction has been verified, but he evidently inclines to the view that the majority of cases are of spontaneous origin, and due to a profound affection of the nervous system. In the reporter's own experience a *large proportion* of cases of so-called "neurotic excoriation" and "hysterical gangrene" have turned out to be artefact dermatoses, and therefore other cases of unproved origin must be greatly suspected. No doubt, however, it is true that the subjects are highly neurotic, and many, to say the least of it, are on the borderland of insanity.

T. C. F.

PRECANCEROUS AFFECTIONS OF THE SKIN. M. B. HARTZELL.
(*Journ. Cut. Dis., including Syphilis*, September, 1903.)

IN Hartzell's review of the subject he refers to (1) the peculiar multiform inflammation of the skin, associated with epithelial overgrowth, occurring in workers in tar and paraffin; (2) cancer originating in a somewhat similar dermatitis, occurring on the scrotum of chimney-sweeps; (3) a similar affection mentioned by Rayer in smelters of arsenical ores; (4) epithelioma consecutive to (a) lupus vulgaris, (b) lupus erythematosus, (c) tuberculosis cutis verrucosa; (5) the ulcerating lesions of tertiary syphilis; (6) chronic ulcer of the leg; (7) cicatrices arising from any cause, but more particularly those resulting from burns; (8) benign new growths of the skin, congenital or acquired, especially warts and pigmented nævi; (9) various forms of circumscribed keratosis, such as cutaneous horns, callosities, the palmar and plantar lesions resulting from arsenical poisoning, and senile keratoma (Besnier) of the face and hands of persons past fifty years of age (so-called senile seborrhœa, acné sebacée partielle, acné concrète). The author especially discusses the latter affection, and gives the results of his study of five cases. He found marked thickening of the corneous layer, especially about the mouths of the sweat-ducts and dilated plugged hair-follicles, with persistence of the nuclei of the cells of this layer, disappearance in most places of the granular layer except about the follicular mouths, and evidence of increased activity in the basal cells, leading in older lesions to notable thickening of the rete. The coil-glands and their ducts showed pathological changes in every case, and the author thinks these structures play an important rôle in this form of keratosis.

In the discussion following the reading of the paper Professor White remarked on epithelioma following prolonged psoriasis probably arsenical in origin, and he and Pusey also related cases of cancer secondary to chronic X-ray dermatitis.

T. C. F.

(G. L. Cheate, *Brit. Med. Journ.*, December, 1903, refers to eleven cases of tar cancer, and reproduces F. S. Eve's illustration of this affection mentioned in his paper "*On the Relation of Epithelioma to Irritation and Chronic Inflammation*," *Brit. Med. Journ.*, April 2nd, 1881.—REP.).

**PALUDIDES; WITH THE HISTO-PATHOLOGY OF A CASE OF
MALARIAL PURPURA. MARTIN F. ENGMAN. (*Journ. Cut. Dis., includ-
ing Syphilis*, November, 1903.)**

THE author employs the term *Paludides* as a convenient one to denote the various eruptions incidental to Malaria, and without the special significance attaching to terms such as Syphilides and Tuberculides. His records are valuable because he systematically examines suspicious cases for the plasmodium; and, as he remarks, much of the literature is founded on a diagnosis made only from the periodicity of an eruption, its disappearance during quinine administration, or association with general symptoms of malaria. Engman adds eight further cases to the eighteen he collected before.

Herpes simplex is probably the most frequent affection (one third to one half of the cases), and affects usually some part of the face, and is apt to be severe. The author has met with two severe instances occurring without the usual symptoms of malaria.

Zoster is believed to be frequently induced, and the author adds ten cases to the fourteen recorded by Winfield.

Under the term *Pompholyx* Engman describes an eruption of cold, clammy, moist hands and feet (four cases), characterised by clusters of deep vesicles, which rapidly subsided under quinine.

With regard to *Urticaria*, Riesman's classification is quoted, viz.:

1. The type accompanying the malarial paroxysm, and usually appearing during the febrile stage—*Febris intermittens urticata*.
2. That replacing the chill, the other features of the paroxysm remaining.
3. That taking the place of not only the chill, but of the entire paroxysm. This is the type most frequently seen by dermatologists.

Under the heading *Erythema multiforme* three cases are mentioned, but one of them, at any rate, suggests urticaria. The author refers to intermittent scarlatiniform Erythema observed by Billet and Anthony, and morbilliform types seen by Thayer.

A case of *Nummular eczema* of malarial origin, somewhat similar to the one observed by Brocq, is recorded.

Small *Petechiæ* are occasionally observed, and Hardaway and Bliss have noted *Purpura hæmorrhagica*.

Finally, Engman refers to cases on record of the coincidence of ulcers and skin gangrene in the æstivo-autumnal type.

T. C. F.

**A CASE OF CREEPING ERUPTION (LEE), LARVA MIGRANS
(CROCKER), HYPONOMODERMA (KAPOSI). H. W. STELWAGON.
(*Journ. Cut. Dis., including Syphilis*, November, 1903.)**

THE author describes the line of a burrow on the leg of a boy, aged 9 years, as consisting of a somewhat irregular, tortuous, erythematous, erythemato-papular, and papulo-vesicular line of some inches in length, and varying from a sixteenth to an eighth of an inch in width, and of about the same varying elevation above the surface. The line was the least marked, and, indeed, scarcely perceptible, at the extending end; more marked on the recently traversed part, and gradually

became less noticeable and fading away where the track had first been made. Secondary lesions may arise from scratching. Asafoetida was given according to Van Harlingen's plan, and a cataphoretic application of corrosive sublimate made and supplemented by a minute application of nitric acid over the suspected lair of the parasite. The treatment appeared to be successful.

According to some Russian authors quoted, the parasite consists of an exceedingly minute larva, spindle-shaped, with ten segments, $\frac{1}{2}$ mm. to $1\frac{1}{2}$ mm. in length. The mouth is surrounded by hooklets, and armed with two suckers. The identification of the exact spot where the parasite is located is often very difficult. Samson-Himmelstjerna advises pressure over the suspected position with a magnifying-glass, but Stelwagon found in his case that the termination of the advancing line was hardly recognisable.

T. C. F.

MULTIPLE HÆMANGIOMATA OF THE RIGHT ARM. ABNER POST.

(*Journ. Cut. Dis., including Syphilis*, November, 1903.)

Post describes and illustrates a remarkable example of Hæmangiomata of the arm of a girl of sixteen years, which was first noticed at about one year of age. The case is similar to one recorded in *Die Elephantiastichen Formen* of Esmarch and Kulentampff. Post's case was operated upon when the girl was aged 10 years, but the growths recurred, and almost exactly reproduced the original picture. For the most part the vessels were large with thin walls (cavernous), and some of these were filled with old thrombi infiltrated with polynuclear leucocytes and some other cells. In places the vessels approached more or less closely the capillary type. The connective tissue of the vessel-walls was slight, in places cedematous, and mast-cells were here and there present.

T. C. F.

A HISTOLOGICAL INVESTIGATION CONCERNING THE ACTION OF CERTAIN REDUCING SUBSTANCES USED IN DERMATOLOGY. VIGNOLO-LUTATI. (*Monatshefte f. prakt. Dermatologie*, March 15th, 1904, Bd. xxxviii, p. 257.)

IN a series of interesting experiments the author has applied pure preparations of tar, oil of cade, Ol. rusci, gallacetophenol, anthrarobin and ichthyol to the combs of cocks for various periods, and by microscopic examination of sections has determined their effects on the various layers of the epidermis and cutis. The cock's comb has the advantage of being devoid of hair and having a rich vascular supply. Ichthyol represents one of the weaker reducing substances; the remainder belong to the stronger varieties. *Tar*. With this the horny layer is in places thickened and swollen, and in places loosened and separated from the granular layer, in which case exudation occurs in the granular layer as well as in the rete. The individual cells of the granular and upper rete are cedematous. The cell outlines disappear, the nuclei stain badly, and there are masses of nuclear debris. The exudation and degeneration do not show the same intensity in all parts, nor do they extend to the same depth. The deeper rete cells, and especially the basal layer, are more or less swollen with clear nuclei which show abundant karyokinesis. The superficial cutis is somewhat infiltrated,

the deeper raised and loosened. Here amorphous masses of pigment were seen, which, on further examination, proved to be due to penetration of the substance used into the deep cutis.

The author concludes that the action of tar is not only upon the superficial cells of the epidermis which come in direct contact with the application, but that it also extends deeply into the cutis, and is thus capable of acting upon chronic skin infiltrations. Both oil of cade and oleum rusci have a stimulating action, but oleum rusci has a more intense action on the cutis than oil of cade, and on the whole is more stimulating.

Anthrarobin. The result of these experiments corresponds closely with those obtained by Hodara when working with chrysarobin, and the author suggests that in practice the former might well replace the latter.

Gallacetophenon. Its stimulating action is less than that of pyrogallol, but greater than that of anthrarobin, and approaches that of chrysarobin.

Ichthyol. Numerous experiments were made, and sections of tissue examined both during its regular application and at various periods after it had been left off. In the latter case it was found that the skin had completely recovered in some twenty-five days after stopping the application. Very full details of the histological changes are given.

The paper is illustrated by four excellent figures.

ARTHUR HALL.

TWO CASES OF BURNS, TREATED WITH UNNA'S "CHLORAL-CAMPHOR SALBEN-MULL." M. HODARA. (*Monats. f. prakt. Derm.*, March 15th, 1904, Bd. xxxviii, page 275.)

THE writer has used this preparation successfully in two cases of burns in children, one of the penis and pubes, the other of the hand. The simplicity of its application and its soothing effect in allaying pain make it of the highest value in such cases, especially in young children.

ARTHUR HALL.

MUSCULAR ATROPHY AND SCLERODERMIA. J. A. NIXON. (*Bristol Medico-Chirurgical Journal*, December, 1903, vol. xxi, No. 82, p. 328.)

THIBIERGE, in a "Contribution to the Study of Muscular Lesions in Scleroderma" (*Revue de Médecine*, 1890, p. 291), drew attention to the fact that muscular atrophy might occur in scleroderms, not only as the result of pressure of superjacent scleroderma or of downgrowths of fibrous tissues, but also in parts covered by normal skin. He reported a case of his own and quoted four other instances from the literature. These five cases had certain characters in common, viz. scleroderma in multiple plaques or generalised with well-marked "masque sclérodermique"; pigmentation was a noticeable feature; pronounced muscular lesions, characterised by induration, retraction, or atrophy, and independent in their localisation from cutaneous alterations. The muscles principally affected were the biceps brachialis, the deltoid, and the adductors of the thighs. Dreschfield reported a case (*Manchester Med. Chronicle*, 1897, p. 263), of scleroderma in a female, aged 28 years, in whom there was well-marked atrophy of the thenar and hypothenar eminences, the skin of the palms being normal. Robert (*Des*

Myopathies dans la Sclerodermie, Thesis, Paris, 1890) observes that "generalised scleroderma is frequently complicated by localised muscular atrophy, not the atrophy due to sclerosis, but a special form of atrophy without induration, which is very early in its development."

Nixon's case, as he points out, very closely resembles those described by Thibierge, and is also characterised by the very early development of the muscular atrophy. The patient was a postman and bootmaker aged 35 years. His illness began with loss of power of legs and arms, so that he had first to give up his duties as postman and afterwards his bootmaking. This was followed by marked pigmentation of the skin of the flexures, and several months later by scleroderma. When he first came under Dr. Nixon's observation the scleroderma occupied the face (*masque sclérodermique*), front of neck, extending over clavicles on to chest; also wrists and hands and fingers; there was deep pigmentation of the flexures of elbows, knees, and groins; there was also marked atrophy of the muscles at the back of the neck, of the deltoid, trapezius, supraspinatus, rhomboids, teres, triceps, and glutei, all in situations uncovered by sclerodermic skin, the changes in the skin bearing no causal relationship to the muscular atrophies. Nixon briefly discusses the significance of these cases in reference to the pathology of scleroderma, and concludes that they lend support to the view that scleroderma is only one of a group of local trophic phenomena, dependent on disease of the central nervous system, to which group "this form of muscular atrophy may have for the present to be added."

H. G. ADAMSON.

A HUNDRED ATTEMPTS TO INOCULATE ALOPECIA AREATA.

L. JACQUET. (*La Presse Médicale*, December 12th, 1903.)

ALTHOUGH the parasitic theory of Alopecia areata has lost much ground, it is sufficiently long-lived in medical and public opinion to influence the scientific conception of the dermatosis and to impose certain social restrictions upon the patients affected by it. This two-fold consideration led the writer to undertake a series of inoculations with a view to throwing light on the question. Since 1875, when Horand, of Lyons, attempted the inoculation of a child, and denied the parasitic origin, several attempts have been made by the author and by M. Hallopeau. The few facts thus obtained are extended by the writer's observations on himself and five of his pupils. The patients, fifteen in number, were suffering from Alopecia areata of different clinical varieties, varying in duration from several days to a month or more, in full extension and untreated. Nearly all these patients believed themselves infected and infectious. Several gave vague indications of the origin of the disease. Only one gave precise details: he contracted his alopecia from his brother, who had the disease, and with whom he had recently slept. The brother was seen and found to have had Alopecia areata five years previously. The operation was conducted by collecting the supposed contagious products obtained by scraping and vigorous friction of the areas and their borders on a moistened tampon of cotton wool, then thoroughly rubbing them into the parts of the scalp preferred by the disease. One of these trials merits a detailed description; the patient was sent by Sabouraud, who thought he presented the best conditions for infection. M. Ricou, with an electrolysis needle carefully charged each time with the products of the scraping from the skin,

catheterised thirty of the writer's hair-follicles in the temporo-parietal region. These inoculations were followed for two days by neuralgic sensations in the whole of the side of the head and scalp. The next day Sabouraud himself catheterised twenty of the follicles on the opposite side, and at his request all care of the toilet was abstained from for forty-eight hours; this time there was no neuralgia. The writer had had Alopecia areata seven years before; the disease has a strong tendency to recur, and in view of the supposed contagiousness, the penetration, and selected soil, the experimental conditions seem to have been ideal. The result was that in six people in a hundred inoculations not a hair was lost. Alopecia areata is not, then, inoculable in any of its varieties. This being the case, there is an infinitely small chance, for this reason alone, of its being contagious and parasitic, and the author considers vigorous prophylactic measures to be useless and vexatious.

S. E. DORE.

DERMATITIS HERPETIFORMIS IN CHILDREN. MEYNET and PEHR.

(*Ann. de Derm. et de Syph.*, December, 1903, p. 893.)

DERMATITIS herpetiformis is certainly uncommon in childhood, and the authors unnecessarily excuse themselves for publishing this case, which occurred in a female child of eight; a careful *résumé* of the cases in children previously published and a most thorough examination of the condition of the blood in this case add to the value of the paper. In the patient here reported, tuberculosis of the lungs co-existed with the skin affection; and the child was thin and ill-developed, with signs of rickets. The first onset of the eruption took place in 1902 (March), and persisted for a month, to recur again ten months later. A few days before she came under the observation of the authors she had a convulsive seizure of an obscure nature with complete loss of consciousness, followed by a long and heavy sleep. The vesicles appeared first on the hands, but gradually spread to other parts, so that by April almost the whole body with the exception of the face was involved, the limbs being particularly attacked. The lesions were very heterogeneous, and not grouped in a specially herpetiform arrangement. Some lesions were seen in the mouth, but the genitals escaped entirely. Itching was never severe, but pain was a prominent feature, especially when the parts were exposed to the air. The lesions generally became purulent, emitting a most sickly odour. By May 4th the eruption had become much less and the pain was infrequent. Many pigmented patches were left to mark the site of older lesions. The child had no further recurrences, but nevertheless died in September, probably from granular kidney. Examinations of the urine revealed no important facts, except that the urea was deficient in quantity and increased progressively with the improvement in the condition of the skin. Three examinations of the blood are recorded, in April, May, and July. Eosinophile corpuscles were present in increased quantity at each investigation, 13 per cent. being the lowest and 18 per cent. the highest, and apparently the more usual percentage found. The red blood-discs were deficient in April (3,500,000) and somewhat more nearly normal in number in May (4,171,000). Twenty-four observations in children are cited from a wide consideration of the literature of the subject. From an examination of these the authors offer the following conclusions:—(1) The later years of childhood are more subject to this disease than the earlier, between six

and ten being the commonest period; (2) males are more subject in the proportion of 17 to 7; (3) no single constitutional cause can be cited in a majority of cases. Finally, the general picture of the disease is the same as in adults, and no reason exists for making a separate group of the juvenile cases, as proposed by Unna.

A short bibliography is appended, beginning with 1885 and ending with 1901.

E. GRAHAM LITTLE.

THE HISTOPATHOLOGY OF PSORIASIS. VERROTTI. (*Ann. de Derm. et de Syph.*, August and September, 1903, p. 633.)

A TABULATED *résumé* of the many disputed points in the pathology of psoriasis precedes this paper. The author justly remarks that views of the histology have often been coloured by preconceived opinions, which vitiate the findings; he, himself, considers that the question should be studied from a urological standpoint, and he has already contributed a paper in this connection to an Italian journal. The present research seems founded on a close study of three cases of psoriasis in different stages of evolution; and three conclusions are derived from this. I. The psoriatic process is, in the three cases studied, "the expression of an acid auto-intoxication." II. The activity of the psoriatic process depends on two factors—(a) on the degree of acidity of the blood, and (b) on the integrity of renal functions. III. The skin serves, in psoriasis, as a channel of elimination, which, according to the different degrees of organic change, either supplements or replaces the renal functions when these are insufficient.

Sections were made from two of the three cases cited; the third, being in the condition of exfoliative dermatitis, was not examined. In the first case there was a family history of neurosis, and the patient, a boy of thirteen at the date of the appearance of psoriasis, had had a sickly infancy, but had improved in health in later childhood. Typical scaly nummular patches were present, and also some disorder of pigmentation—whiteness in the parts previously affected with the disease, these white patches being surrounded by hyperpigmented areas.

In the second case, a man of thirty-nine, there was generalised psoriasis, with a history of a similar eruption in the father and grandfather. The sections from the first case were taken during the height of the eruption, which was artificially fomented by the administration of acids and an increased meat diet.

Verrotti makes the following generalisations from a consideration of the histology of the first case:

There are three zones to be distinguished in a lesion of psoriasis: (1) the peripheral or marginal, immediately surrounding the lesion, which is apparently healthy to the naked eye, but shows definite changes histologically; (2) a median zone of active disease; (3) a central zone, in which there is a certain degree of involution, indicated by the diminished vascularity and increased epithelial proliferation. The appearances of both sections are examined under these headings, and certain differences, corresponding to the different stages of the disease, are discussed.

The author rightly insists that much of the apparent contradiction existing between the statements of different observers as to the histology of psoriasis is due to overlooking the stages of the disease at the time of excision. He states that he has found as an uncommon appearance, in the section of the first case,

the primary lesion described by Minro and Sabouraud as the initial lesion of pemphigus and is to be regarded them in this light. As regards the granular layer, it is present in the superficial zone, this may be normal, hypertrophied, or absent, according to the part of the section, whether peripheral, intermediate, or central. A granular layer is present normally in the deeper layer of the epidermis, but is distributed in the superficial layer of the rete in the intermediate zone and is absent altogether in the central zone. The author thinks that the migration of leucocytes, noted by many observers in pemphigus in the superficial layers of the epidermis depends on the alterations in the structure of the papillæ and is conditioned by the state of proliferation of the rete. The rete is at its height when the rete is at the height of its proliferation: he explains this on the supposition that the massed cells of the rete resist the advance of the leucocytes. Vasodilatation is most conspicuous in the peripheral zone, where the migration of cells is most pronounced in the zone of active proliferation. The varied question as to whether the papillæ are elongated as a primary feature as the mechanical result of the proliferation downwards of the rete, or whether the elongation of the epithelium is decided by the author in the sense that the papillæ elongate and increase in size *pari passu* with the interpapillary processes and is a common result of the same cause, namely, an alteration in the structure of the epithelium and the papillæ, brought about by a modification of the blood supply, which the author's researches on the urology of pemphigus lead him to think are the essential causes. This view does not clash entirely with the opinion which ascribe a large share in its causation to the nervous system; but the part this latter plays is chiefly in the localisation of the eruption rather than in its origination.

The paper is illustrated by six lithographs, which appear, by an error of distribution, in the October number of the journal under review.

E. GRAHAM LITTLE.

EPIDERMOLYSIS BULLOSA HEREDITARIA. BETTMAN. (*Dermatologische Zeitschrift*, B. L. x. Heft 6, p. 561.)

IN the summer of 1903 a man came to the hospital on account of a skin disease which affected him and his two children, and had existed in all three cases since birth. The man was thirty-four years old, and was a powerful and muscular subject. The skin affection showed itself in the occurrence of bullæ, especially on the hands. The fresh bullæ attained the size of a cherry, and were filled with serum, in some cases markedly blood-stained; they affected both surfaces of the hands about equally, and the skin of the backs of the hands showed marked atrophic changes. The epidermis appeared wrinkled, and showed the most minute folds. It was quite easy to pinch up a fold of the epidermis, and this gave rise to the occurrence of a bulla later. The skin on the volar sides of the fingers seemed distended and swollen, and the ridge system was obliterated. On the backs of the hands there were groups of milia. All the nails were damaged, deformed, broken and friable. The skin of the elbows was discoloured, and had been the seat of bullæ recently. The same condition of the skin over the knee was observed, and the feet showed bullæ and their remains, but there was neither atrophy nor milium present here, and the toe-nails were intact. There was nothing else abnormal, the mucous membranes, hair, and teeth showing no anomalies. His

children, an eleven-year-old boy and a ten-year-old girl, showed a precisely similar condition.

The family history showed that the first known case was a daughter, who was one of thirteen children. She married and had ten children, two of whom were affected and one of whom died in infancy. The other child affected married and had fourteen children, including two pairs of twins. Of these, two were affected, and both of these affected ones were married. One, a female, had three male and two female children, of which all the males and one of the females were affected; the other, a male, had two children—one male and one female,—both being affected.

A. W.

LIGHT TREATMENT AFTER SENSITISING. GEORGES DREYER. (*Dermatologische Zeitschrift*, Bd. x, Heft 6, p. 578.)

THE point of this paper is to show that by the injection, either intra- or hypodermically, of small amounts (0.5—1 c.cm. per 4—6 cm. sq.) of a 1 in 1000 solution of erythrosin about four to eight hours before the light treatment the tissue is so far sensitised that the results are far more efficacious as regards their penetration. No details of the cases treated are given, as the complete communication appears in the journal published by the Finsen Light Institute.

A. W.

ERUPTION DUE TO MESOTAN (MESOTANEXANTHEM) C. BERLINEER. (*Monats. f. prakt. Dermat.*, Bd. xxxviii, No. 3.)

THE author records a case in which a patient of middle age was ordered (by an unqualified practitioner) Mesotan, both internally and as a local application for a painful shoulder-joint. After a few applications he suffered from a very severe itching on the rubbed parts, soon followed by an eruption. The eruption is described as being of a bright red colour, and consisting of irregular patches, raised, varying in size and shape, with narrow intervals of apparently normal skin between. It affected the right shoulder, extending to the back, the chest in front, and the right axilla, in the latter as an erysipelas-like redness. The right wrist was also affected, and the left shoulder, which had also been slightly rubbed previous to the right, was affected with a lichen-like eruption. There was no pyrexia. Although the local application of Mesotan was discontinued on the appearance of the eruption, the author draws attention to the fact that the eruption did not at once subside, and the attacks of severe itching, of an almost paroxysmal nature and affecting various parts of the body, were repeated. From this he concludes that the Mesotan once absorbed is not readily eliminated, and so long as it is present in the body is capable of producing its effects. Unfortunately the urine was not examined for salicylic acid in this case. The writer refers to the rarity of eruptions due to preparations of salicylic acid, in spite of their very frequent use; the possibility that it was some other constituent of the Mesotan rather than its salicyl portion which caused the eruption; and the doubt as to whether the rash was produced by the internal action of the drug or by the local application only. He advises those who intend to prescribe the drug as a local application to bear in mind the unpleasant results which may be produced, and to give very clear instructions to the patient, so as to avoid them.

ARTHUR HALL.

REVIEWS.

TRANSACTIONS OF THE AMERICAN DERMATOLOGICAL ASSOCIATION.*

THE twenty-seventh annual meeting of the American Dermatological Association was held at Washington in May, 1903, in connection with the Triennial Session of the Congress of American Physicians and Surgeons. Dr. Charles J. White has succeeded Dr. F. H. Montgomery in the Secretaryship of the Association, and it is to him that we are this year indebted for the official report of the proceedings.

The President of the year was Dr. J. T. Bowen, of Boston, and he chose for the subject of his presidential address the *Methods of Teaching Dermatology*. In it he emphasised the importance of teaching the subject to small sections of students and not to large classes, so that each student might have the opportunity of seeing closely and feeling the lesions in the different cases demonstrated. With regard to didactic lectures, he considered that they were of service, in spite of the fact that most, if not all, of the knowledge which the lecturer was able to impart might be found in the recognised text-books, and that they were especially valuable when delivered by an instructor who had a capacity for teaching and was able to present his subject in a simple and lucid fashion.

At the first session of the meeting the following papers were contributed:—*A Case of Glanders in the Human Subject*, by Drs. J. A. Fordyce and A. D. Mewborn; *Recent Contributions to our Knowledge of the Hysterical Neuroses*, by Dr. A. Van Harlingen; *Recurrent, Progressive Bullous Dermatitis in an Hysterical Subject*, by Dr. C. J. White; *Sarcomatosis Cutis*, by G. W. Warde; and *The Presence of Peculiar Calcified Bodies in Lupus-like Tissue*, by T. Caspar Gilchrist and W. R. Stokes. The morning session of the second day was devoted to a general discussion on the *Use of the Röntgen Rays in Dermatology*, the opening papers being read by Dr. Stelwagon, of Philadelphia, and Dr. Pusey, of Chicago. Dr. Stelwagon, in his address, demonstrated a useful apparatus, suggested to him by Dr. Pfahler, for the protection of the other parts than those it was desired to expose to the rays. This consisted of a wooden disc fifteen inches in diameter, and covered on one side with lead foil; this disc had a central opening which could be made smaller by means of various sized, smaller, perforated discs, which were attached to it. The disc was fixed to the projecting area of a photographer's head-rest, and could be adjusted in almost any position. To the back-rest of the stand an ordinary movable tube-holder was attached, the stand thus serving the double purpose of a protecting screen and a tube-holder. This apparatus, though simple, is much more cumbersome than the recently devised lead-glass shields with variously sized tubes fitted to them, such as the pattern exhibited a few months ago at the Dermatological Society of London by Mr. Harnack, of the London Hospital.

At the evening session of the second day Dr. Prince Morrow, of New York, contributed a paper on the somewhat hackneyed subject of *Syphilis and the Medical Secret*. The paper was none the less interesting, and gave rise to

* *Transactions of the American Dermatological Association*. Twenty-seventh Annual Meeting, May, 1903. Official Report of the proceedings. By CHARLES J. WHITE, M.D. "The Grafton Press," New York.

considerable discussion. Among other sensible remarks regarding the arguments for and against the withholding of information from a father whose daughter is about to marry a syphilitic patient, the writer observes that though reticence regarding the patient's disease may be necessary, still various subterfuges may be permissible, such as advising the father to have his prospective son-in-law medically examined for life insurance, or if that failed, categorically saying to the father, "Do not let your daughter marry this man." He specially emphasised the danger of congenital syphilitic children as sources of infection to those, other than their mothers, who come in contact with them. He also refers to the obligation of physicians to protect the secrets of syphilitic patients in hospital, and to what he considers to be a breach of professional discretion, the publication of photographs revealing syphilis in a subject.

Dr. J. C. White, of Boston, read an important paper on *Dermatitis Venenata—a Supplemental List* at the same session. In it he described various forms of eczematous dermatitis produced by certain new hair-dyes, such as chlorhydrate paraphenylene-diamine; a dye called Aureole, containing metol, amido-phenol-chlorhydrate and monoamidophenylamin; and various other irritants not generally recognised, such as aurantia, cocus-wood, guaiacum, hops, hyacinths, and possibly several of the ampelopses.

On the third day Dr. Abner Post, of Boston, described a singular case of *Multiple Angiomata*.

Dr. F. H. Montgomery discussed the *Present State of Photo-therapy*. Dr. Hartzell presented a contribution on *Precancerous Keratoses*, and Dr. Engman, of Louis, one on *Paludides; with the Histo-pathology of a Case of Malarial Purpura*. Besides these papers and the discussions they elicited a number of important cases were demonstrated, and a large series of photographs were exhibited.

This short notice contains little more than a list of the various valuable papers which were presented at the meeting, as the majority of them have already appeared in detail in the *Journ. of Cut. Dis.*, and a number of them have been abstracted in our Journal. This list will serve to show, however, the scope and splendid activity of the association, and the good work it is doing for the advancement of Dermatology.

J. M. H. M.

LES TUBERCULOSES CUTANÉES ATYPIQUES (TUBERCULIDES).*

IN this thesis the author, who is already known by a number of contributions to Dermatology, reviews our present knowledge of the Tuberculides in a work of nearly 400 pages, and contributes several new observations. He first reviews the conception of cutaneous tuberculosis anteriorly to the period when discussion on tuberculides arose, and then goes on to trace the evolution of our knowledge of tuberculides, and to set forth the present-day conception of tuberculosis and the tuberculides. He advocates a simplification in the terminology, and proposes to classify the atypical cases of tuberculosis into (1) the nodular type, of which there is a form with little nodules (papulo-necrotic) and a form with great nodules (Erythema induratum of Bazin, Giovanni's hydros-

* *Les Tuberculosés cutanées atypiques (Tuberculides)*. By L. PAUTRIER. Th. de Paris, 1903.

adénite, the Ecthyma scrofuloux of Gastou and Emery, the Thrombo-phlébite tuberculeuse and the necrotic nodular phlebitis of Philippson); (2) the lichenoid type (Lichen scrofulosorum, Pityriasis simplex of infants' faces of Boeck, and the latter's Eczema scrofulosorum); (3) the type *en nappe*, localised or generalised, (discoid and generalised Lupus erythematosus, Lupus pernio, and perhaps chilblains and acro-asphyxia of the extremities, Pityriasis rubra of Hebra, and exfoliative erythematous tuberculides of Boeck); (4) the angiomatous type (angio-keratoma). These groups are then discussed *seriatim*, a *résumé* is given of many recorded cases, and personal observations added, and a bibliography appended. We miss references to many cases studied in America and Great Britain. The author is a strenuous advocate of the tuberculous nature of Lupus erythematosus, and tabulates thirty-five cases he has observed; and of these he found that twenty-one presented hereditary antecedents of tuberculosis, nineteen personal antecedents, ten gave suspicious auscultatory signs, twenty had at some time persistent cervical adenopathies, and only three were completely free from all taint, either personal or hereditary. He has an interesting section on the results of autopsies in Lupus erythematosus, showing a striking incidence of tuberculosis and pleuro- and broncho-pneumonia. Where tuberculosis was not discovered the author suggests doubts as to the thoroughly exhaustive nature of the investigation, and mentions the case of hepatic cirrhosis proved by Hanot and Gilbert to be tuberculous after inoculation in guinea-pig.

In suggesting the inclusion of the grave Pityriasis rubra type of Hebra in the group of tuberculides, Pautrier refers to the recognition by Hans Hebra and Jadassohn of tuberculosis as a frequent complication, and mentions the case recently recorded by Bruusgaard. Jadassohn, and also Vietowieyski and Kopitowski in another case, found giant-cells in the skin. As for angio-keratoma Pautrier points out that before the tuberculous hypothesis was started tuberculosis was rarely recorded in the patients; but since that date the presence of tuberculosis has been more frequently noted.

The author is inclined to incriminate the bacillus of Koch as the cause, and admits it is possible that it may arrive dead in the skin, or more probably living and little virulent and soon dying. The vascular origin can alone explain the dissemination of the lesions, and the constancy and unity of the vessel-alterations in all cases examined. In this connection we miss any allusion to the cases of sudden outburst of a disseminated eruption of unquestionable tuberculous lesions.

One reference, which we have seen quoted several times, requires correction. The case in which MacLeod and Ormsby found a tubercle bacillus was one of multiple "scrofulo-tuberculous gummata" in a child, and not of a "tuberculide."

T. C. F.

PORTFOLIO OF DERMOCROMES.*

THE second volume of this portfolio makes its appearance at a commendably short interval of time after the first.

The first part of volume II consists of illustrations of various cutaneous

* *Portfolio of Dermochromes*, by Professor Jacobi. English adaptation of text by Dr. J. J. Pringle. Vol. II, Parts 3 and 4. Rebman: London, 1903.

affections. Even the rarer of these are sufficiently common to cause recurrent difficulty in diagnosis to practitioners who are unfamiliar with their appearance. The second part is devoted to skin diseases of venereal origin. The examples selected for illustration are well chosen from among the infinite variety of syphilitic and venereal skin diseases. Some of them are specially worthy of study by those who feel inclined to consider all skin diseases of difficult diagnosis as of syphilitic origin. The palmar and plantar affections should be specially noted.

The quality of these coloured reproductions is quite up to the standard already recognised in our former review of volume I. Many of them are exceedingly good representations of the maladies they represent.

. We have great pleasure in recognising the merit of these two volumes. They form certainly one of the best of the smaller atlases of dermatology.

THE FINER ARCHITECTURE OF PRIMARY CARCINOMA OF THE SKIN.*

IN this monograph, to which was awarded Dr. Unna's dermatological prize, there are given the results obtained by the authors in sixteen cases of carcinoma of the skin. As in the course of their investigation they were able to convince themselves of the epithelial origin of nævus-cells, the malignant growths proceeding from nævi are classed by the authors as nævo-carcinomata, and included in the scope of their inquiry. They adopt Krompecher's classification into two great groups, with a third or transition class:

(a) Prickle-cell cancer (*Carcinoma spinocellulare*). The growth is composed of large weakly stained cells with vesicular nuclei and, as a rule, well-developed prickles. Occasionally the prickles are absent, and then the protoplasm appears granular, as if finely powdered. The cells undergo typical cornification with the formation of horn-pearls. There are usually well-marked intercellular lymph-channels. Owing to downgrowths into the tissues, this type leads to metastatic growths in the glands.

(b) Basal-cell cancer (*Carcinoma baso-cellulare*, *Carcinoma epithel. adenoides*). The growths are made up of cylinder-cells of the basal layer that may originate from any point, *e. g.* surface, follicles, glands, ducts. The cells are small, oval, or spindle-shaped. They contain a long deeply stained nucleus and very little protoplasm. As a rule there are no prickles, no cornification, no horn-pearls, and lymph-channels are absent. There is often an extensive degeneration of the connective tissue which may be myxomatous, hyaline, or osseous. They grow slowly, and come to project considerably above the surface, and show little or no tendency to metastatic growths.

(c) Transition forms (*Carcinoma spino-baso-cellulare*). In these both types of cells are represented, either in close juxtaposition or in different parts of the same tumour.

The nævo-carcinomata resemble the basal-cell cancer not only as to their cells—which both lack fibres, and intercellular lymph-channels,—but also in their mode of

* *The Finer Architecture of Primary Carcinoma of the Skin*, by Dr. CORNELIUS BECK and Dr. EDMUND KROMPECHER. Leopold Voss, 1903.

development. In both there is found, especially in the early stages, a pigment-degeneration of the deeper epithelial layers with the production of small gaps and cavities.

In both the authors found evidence of "multicentric genesis" of epithelial growth, and as they could detect no evidence of the ingrowth of connective tissue into the ridges with snaring off of the same, as maintained by Ribbert, they regarded the point as evidence of the primary activity of the epithelium in carcinoma.

The horn substance seen in prickle-cell carcinomata comes either from extension of the surface horny layer into the growth, or may develop independently round some nucleus, such as a hyaline block, oedematous, swollen, or vacuolated cells, or pigment masses.

They remark the close resemblance between the intra-cellular hyaline and the colloid material of colloid cancer. They show, however, that tinctorially there are differences, so that the two substances must be regarded as distinct.

The formation of clefts, holes, and cysts in the epithelium is considered at some length. Cysts and holes also form in the connective tissue owing to degenerative processes, myxomatous especially, and also to cavernous expansion of the blood-vessels.

In alcohol-hardened preparations, numerous epithelial mitoses are in evidence; but these are rarely found in the connective-tissue cells.

The connective tissue specially in the basal-cell type is mostly new-formed, resembles a granulation tissue, and often shows myxomatous, hyaline, or osseous degeneration. In carcinomata that penetrate deeply there are small-celled infiltrations showing typical plasma-cells peripherally and lymphocytes within. The new-formed connective tissue contains either no or very few thin, faintly stained, elastic fibres. The old elastic fibres tend to disappear, especially in places where the cell-infiltrations exist. Finally the authors express the opinion that the presence of elacin, kollacin, and kollastin depends not on the carcinomatous growth, but on changes in the cutis due to other causes, *e. g.* exposure to weather.

W. B. W.

THE BRITISH JOURNAL OF DERMATOLOGY.

JUNE, 1904.

THE CLINICAL RELATIONSHIP OF SEBORRHŒA.

The Oration delivered at the Annual Meeting of the Dermatological Society of Great Britain and Ireland, May 25th, 1904,

BY H. G. BROOKE, M.D.,

Physician to the Manchester and Salford Hospital for Skin Diseases.

MR. PRESIDENT AND GENTLEMEN,—I beg to thank you for the honour which the Society has done me in asking me to give the address at the Annual Meeting. I accepted the honour very readily, but my gratification underwent a subsequent depression when I began to think on what subject I might venture to address a meeting which included many of the prominent dermatologists of the country, and only with diffidence did I decide on the theme of "Some of the Clinical Aspects of Seborrhœa."

I emphasize the word clinical because so far from the clinical observations having been completed they will have, in my opinion, to be very largely made over again, for they will have to be repeated from an unbiassed standpoint. The promulgation of unripe and non-viable laboratory theories, instead of having been a help to the solution of a difficult question, has rather retarded its solution.

So much has been written about seborrhœa, so many discussions have taken place as to its nature, its pathological changes and their causes, and about its influence on other diseases of the skin, that it might with seeming reason be thought that some less worn topic might have been selected. But those of you who are teachers will, I

know, sympathise with me in the choice of my subject. We may have for our practical needs some sufficiently elastic working hypothesis about seborrhœa, but when we have to try and clear up the question for our students, how soon we find ourselves in difficulties and contradictions.

In order to teach students it is necessary at times to be dogmatic, and it is difficult indeed to be dogmatic about a subject such as seborrhœa without merely intensifying their dread of our dermatological terminology.

The word itself conveys the meaning of a simple hypersecretion of sebum, but their text-books tell them that seborrhœa is a disease in itself of definite form and localisation. If they turn to the atlases they find it depicted as a scaly pityriasis of the scalp with erythematous borders, or, again, as a kind of rosacea. To add to the trouble some of the atlases give delineations of diseases of most obvious psoriatic type, which are labelled *Eczema seborrhoicum*, and diseases producing very marked lesions on the palms and soles, on which they know no seborrhoic glands are present. And when we have to point out the constant connection between seborrhœa and *Acne vulgaris*, and they read finally that seborrhœa is one of the most prolific causes of baldness, we can quite understand that their confusion is as complete as our own.

As a teacher it is the one word that I have dreaded most, and when asked by students "What is seborrhœa?" I have not felt even the resource of the Arabian philosopher, who, when asked for the definition of something equivalent to seborrhœa in his own domain of thought, replied, "I know quite well what it is, until you ask me."

Up to the time of Hebra the condition was generally recognised, and was described by clinicians under the name of *Flux sebacea*, *Acne sebacea*, *Seborrhœa*, or *Steatorrhœa*, and regarded as an alteration in quantity or quality, or both, of the sebaceous secretions, the inspissation of which was supposed to give rise to the comedo of *Acne vulgaris*. The earlier writers of the last century seem to have distinguished clearly between seborrhœa and pityriasis. Indeed, before Devergie no one appears even to have entertained any idea of the possible connection of the two manifestations, or, at least, no one enunciated the possibility of any such connection. However, some such connection may have been broached, because Malassez, in

1854, in describing the spores which bear his name, insisted on their separate origin.

Had this view been upheld it might have led gradually and directly to the point to which we appear now to be arriving after years of conflict and tribulation, the distinction between the seborrhoic and the pityriasic elements. But by one of those unfortunate accidents which seem to occur in almost every branch of medicine, Hebra put forth the doctrine that the two conditions of seborrhœa and pityriasis were but successive stages of the same process. The scales of pityriasis were derived entirely from the cells of the atrophied sebaceous glands. Seborrhœa was Seborrhœa oleosa, and pityriasis was but Seborrhœa sicca. This doctrine, stamped with the authority of its distinguished author, and stoutly upheld by his successor, Kaposi, was sent far and wide by the host of their pupils, until it found its place in all the text-books, and quite overwhelmed the less emphatic or less prominent pronouncements of earlier teachers.

Tilbury Fox in this country, and Piffard and Van Harlingen in the United States, supported the opinion of the French dermatologists in opposition to that of Hebra, but it was Unna who, as an independent free-lance, by investigating the question afresh and boldly enunciating his views, led up to the defeat of what had become almost a fixed and unquestioned tradition. This he effected rather by a flank movement than by a direct attack. He denied the existence of seborrhœa. The greasy condition of the skin, he asserted, as he had previously done when supporting and extending the views of the older anatomists, Krause, Koelliker, Meissner, and Henle, came from the sudoriparous glands and not from the sebaceous glands, which were merely pomade makers for the hair; and the pityriasis scales were derived, not as Hebra taught, from the interior of the sebaceous glands, but were the effect of a parakeratosis of the superficial horny layers, the result of a dry catarrh of the skin excited, as was the oily sweating which always accompanied them, by the action of a certain microbe, the morococcus. Here we have a complete upsetting of the old landmarks; seborrhœa converted into a hyperidrosis oleosa (but still called seborrhœa, presumably as a means of identification), and blended with a number of pityriasic affections to form a separate type of disease, which he regarded as a dry catarrh of the skin containing all the essential characteristics of eczema. A framework which practically included

in one picture, as a group of the eczema family, almost all the psoriasis which were known to assume a greasy character, from the most simple invisible patches on the face and scalp up to the edge of the school-psoriasis, and which was presented with the greatest skill, and with the most elaborate detail, both chemical and microscopic, as the effect of microbic action, could not but fail to evoke the most intense interest and astonishment.

Besnier, I think, speaks without exaggeration when he says that it has revolutionised the whole of dermatology, and Sabouraud is also, I believe, correct when he says it has been the standard topic, the *piece de resistance* of every dermatological conference for the last fifteen years.

With the main outcome of these discussions you are, of course, familiar. There has been a nearly universal refusal to recognise the sudoriparous glands as the sole, or even the chief, source of the greasy condition which was thought to characterise all these eruptions, a denial of the acanthosis and cellular œdema as the primary element of eczema in place of vesiculation, and a consequent rejection of the more psoriatic forms from the group, and, lastly, a denial of the morococcus as the causative agent, even by those who uphold the parasitic character of the eruptions.*

The view which we take of the connection of seborrhœa with eczema depends entirely on our conception and definition of the meaning of eczema. Whatever views we hold as to the differentiation of artificial dermatites, we practically call all eruptions eczema which show the punctate oozing of coagulable serum or its results in the form of crusts. I think that most of us regard as pure eczema the condition which begins suddenly, and it may be symmetrically as an agglomeration of papules or vesicles on a previously healthy skin, *e.g.* as in a nervously debilitated person; and we regard as eczematous eruptions or secondary eczema such as take place on the basis of other and older lesions, or as the French writers very well put it, *eczématisation*. Audry, for example, regards the larger part of the dermatoses in Unna's *Eczema seborrhoicum*, as *Séborrhéides eczématisantes*.

I am not upholding the exclusive microbic origin of eczema, and

* Unna himself has since seen reason to change his view as to the specifically pathogenic character of the morococcus.

until better explanation is found I can only explain certain outbreaks as "neurotic," or due to abnormal neurotic reflexes, or as "constitutional," the result of some bio-chemical changes (auto-intoxications, toxæmias, nutritional diseases) which prepare the skin to react eczematously to very varied and often very slight irritants. Whitfield, in his very interesting *Lectures on Eczema*, published recently in the *Practitioner*, says that he thinks that the importance of seborrhoic eczema has been overdone, and as he refers to the dermatoses of the eczema seborrhoicum, I agree with him. But if he refers to seborrhoïdes which have become eczematized, or more particularly eczemas which have become infected with the virus of seborrhoic dermatitis, then I disagree, for my experience of 1890 is more confirmed by long observation, that these constitute the great bulk of the eczematous conditions with which we have to deal in practice.

Even if we disagree with Unna's nomenclature and classification of the blending of the seborrhoic condition and the accompanying pityriasis, there must be a marked and very widely recognised connection between his cases and the generally accepted forms of eczema. Had not this been so, we may be sure that Unna's synthesis would not have been so seriously discussed, and in part at least accepted by most of the leading dermatologists in all lands. To elevate the eczematous factor to the chief rank was Unna's mistake, but to under-estimate it has been as great an error in some of his opponents.

Within the last few months there have been published in France three works dealing comprehensively with the whole subject of seborrhœa. Of these the first is the monograph by Sabouraud on *Pityriasis*, a continuation of his investigations on *Séborrhée*, and the two monographs by Audry in *La pratique Dermatologique* on *Séborrhée et les Séborrhéïdes*, and the other on *Psoriasis*. Both are scholarly works, finished with laborious care and illustrated with great detail. No two productions could better illustrate the influence (and the desirability) of difference of temperament in scientific research, for whereas that by Sabouraud is enthusiastic, categorical, and dogmatic, those by Audry are more calmly analytical, and as regards conclusions almost coldly agnostic.

Seborrhœa is a word which has been so much abused that it has become now very difficult or impossible to define it. By one it is used to imply an excessive greasiness of the skin, by another to denote a

greasy affection of certain areas, accompanied by dilatation and plugging of the pilo-sebaceous follicles. The name has long been attached to certain well-known circinate and gyrate lesions best seen about the upper parts of the chest and back (*Seborrhœa corporis* of Duhring), to greasy desquamation of the scalp (*Seborrhœa capitis*), and even to figured eruptions of distinctly psoriatiform development when the scales are greasy, and assume a distinctly yellowish tinge. On the other hand, it has been used to denote an absolutely dry exfoliation of the skin (*Seborrhœa sicca* of Hebra). One eminent physician, whom Sabouraud mentions, made his own limits, or manufactured his own connotation of the term when he said that "for him all that was not eczema or psoriasis was seborrhœa." Well may there have been so many discussions, for until the meaning of the term has been accurately laid down we are simply wandering in space, blown about by every wind of doctrine.

The simple hypersecretion of the sebaceous glands, to which the term seborrhagia would be more appropriate than seborrhœa, is too intimately mixed up with hyperidrosis to be itself definable as a separate entity. It is certainly not a disease, but a personal peculiarity, and is clearly indicated by Besnier's term *état stéatidrosique*. A mere hypersecretion of grease is usually a protective measure in the case of beasts and birds, and possibly so in naked races of mankind, such as the negroes, who have very greasy skins. The first sign of an abnormal condition to which we can apply the term seborrhœa commences clinically by the supervention, in the pilo-sebaceous follicles of an abnormally greasy skin, of plugs of convoluted horny scales, which Sabouraud has compared quite happily to a cocoon. Microscopically there is a marked hypertrophy of the sebaceous glands and some slight atrophy of the epiderm.

Usually there is hyperidrosis of the parts affected, which Sabouraud and Audry regard as an invariable concomitant. The invariability, however, may possibly be a matter of race or latitude, for I know of distinctly seborrhoic persons, affected with acne and other "seborrhoïdes" and who are not in any way ichthyotic, and who yet perspire very slightly, even with violent exercise in warm weather.

The cause of the condition is unknown, or the causes which encourage or retard it. Its evolution does not oppose the supposition of a microbic origin. But in spite of all the long and intricate

investigation which Sabouraud has made, it is impossible to regard his swarming microbacillus, until conclusive evidence of its specific steatogenetic power has been obtained, as anything more than a steatophilic saprophyte. Audry launches out an entirely fresh and startling theory which, if correct, certainly renders our previous confusion worse confounded. Rejecting the microbaccillus as an inert member of a common crowd, which haunt the purlieus of the cocoon, he asserts that seborrhœa, the seborrhœa of Sabouraud, is obviously not a disease at all, but a congenital, hereditary abnormality, such an abnormality as ichthyosis, or nævi, or "as psoriasis." Looked at in this light seborrhœa is a condition of degeneration, closely akin to a premature, senile baldness, with the same hypertrophy of sebaceous and sudoriparous glands and the same atrophy of the horny epidermis, and it is certain that both occur widely spread through numerous races of mankind. Seborrhœa is said to be found very extensively among negroes, and Audry estimates that nine-tenths of the whole of the cases which he examines in the neighbourhood of Toulouse are seborrhoic, at least as far as the nose is concerned. The term abnormality would under such circumstances be, I think, a misnomer, and it would appear more suitable to regard it rather as a stage of evolution or degeneration of the human race, in which the glands were adjusting themselves to a changing environment. But after the first shock which such an announcement must cause, we begin to see that there are strong arguments against the ready acceptance of such a theory. As Audry admits, the number of those who are affected, and even the complications of such affections may depend upon racial or even local peculiarities; the number of cases of basal seborrhœa, if we may so term the greasy skin with cocoon-like plugs, is not nearly so great in other places, certainly not in my sphere of observation. In such a region as his, where seborrhœa is rife, and the people living under much the same conditions, it would be difficult to discriminate between heredity and disease. A whole population living under healthy conditions as to hygiene and food does not tend to perpetuate abnormalities, but to return to the normal.

Such conditions as seborrhœa may be the result of the reaction of the skin to some unusual factors in its nourishment or environment, and not necessarily congenital. The strain of life may induce typical early baldness, especially in some callings such as that of stockbrokers

—a view of the New York Stock Exchange from the gallery is said to show a sea of bald heads, new and old, but these are not all congenital cases assembled in one room. Myopia, which may be inherited, was much on the increase in Germany, until a careful investigation proved that the bad type and the bad light were provoking it, and since these defects have been remedied the amount of myopia is decreasing.

It is true, as Andry says in support of his views, that seborrhœa generally develops at puberty, but it may begin to develop quite typically in infants, as may also acneic comedones; in young children it is not infrequent, and it may, and often does, pass away from them completely. Before accepting the theory of hereditary abnormality as an explanation of this lesion, we should have to consider the influence upon it of food and other conditions of life, as, for example, its relative frequency among the blubber-feeding races and the rice-feeding races, the alcoholic and non-alcoholic, the races of temperate and tropical zones. Alcohol may notoriously increase seborrhœa, quite apart from acne, and the glands of the skin have their powers of secreting not only drugs, but certain elements of food, such as fats. Until we are capable of estimating the deviations from the normal in the composition of the skin fats, I cannot see how we are to find when the sebaceous secretion begins to be morbid, but it is presumably such an alteration which accompanies or prepares the way for other developments, such as the seborrhoides.

Whether the injunction against fatty foods, which is frequently given in these cases, is correct I do not know, but certainly inappropriate food will help to bring on comedones, and distinctly to increase the seborrhœa. I have seen a perfectly typical outbreak of seborrhœa and acne on the back of a soldier, a middle-aged man, who had just come off a transport. He and two others had eaten, by way of butter, the fat skimmed from water in which pork junk had been boiled, and all these were affected alike, as they were warned beforehand they would be. It is almost impossible to trace any such action, except in instances where some unusual food has been followed by an outbreak. And it must be remembered that even such foods need not necessarily affect the general health; for plenty of seborrhoic people have perfect health. These are only suggestions of objections to Andry's theory, not arguments either for or against the microbic

origin ; but they are indications of questions which would have to be answered before a condition which can affect nine-tenths of a population can be accepted as a congenital hereditary abnormality.

Let us now examine the pityriasic elements which are so frequently associated with this seborrhoic condition.

I am candidly unable to distinguish the boundaries of Audry's Pityriasis simplex from normal desquamation on the one hand, and from Unna's primary yellow patches on the other. I think it better for my present purpose to take a more developed form of lesion and trace it briefly into its slightest and its most developed state. For this purpose nothing could serve better than the "flannel rash" or Seborrhœa corporis of Duhring. In its well-recognised positions it is so pronounced an efflorescence, with sharply edged circles and gyri studded with small papules, and having yellowish or fawn-coloured centres, that we can well understand its being regarded as an individual entity. But when once the essential features of the lesion have been grasped it may be found practically anywhere about the body.

In the primary stage we notice the formation, at the mouth of a plugged pilo-sebaceous follicle, of a papule more or less elevated and often not perceptibly inflamed. When this papule begins the cocoon plug disappears. The epidermis around is raised and flattened, but the minute furrows which radiate from the follicles are respected, so that a star-like figure is produced with the affected follicle as centre. A small group of papules show a number of such figures, the radii of which touch those of their neighbours. When the group of papules is small the sharp peripheral lines between them assume almost the polygonal figure of a fort, of which the papules are the turrets and the discoloured area the enclosed interior. As the polygon increases in size the sides become, of course, relatively less, until finally they are practically lost in the line of a circle or an arc.

Sometimes the papules become acutely eczematous at an early stage, and the patch may then lose its distinctive features and become converted into an ordinary patch of red squamous eczema, though perhaps of an unusually yellowish tinge.

At other times the papules become smooth and polished in appearance, or the top becomes flattened, smooth, and glistening, often showing the follicular opening as a minute dell. Such papules, which seem to be found only on less greasy skins, may be of all shades

of red, even livid red, or may be indistinguishable from the colour of the surrounding skin. They sometimes unite to form little raised flat glossy lesions not unlike Lichen planus. Round about these papules the spaces between the small furrows may, without forming papules, become flattened and polished in the same way, a condition which though, of course, not peculiar to this seborrhoic dermatitis, is always very suggestive of its presence. These smooth, flat-topped papules may be discrete like the others, and even when they agglomerate are more persistent and not so prone to form circinate figures.

In 1895 I described the case of a man whose face, shoulders, neck, and arms down to the knuckles were covered with a sheet of livid red papules of this kind, all of which were quite distinct. They had grown downwards from the scalp, which was the site of a profuse seborrhoic pityriasis, and the whole efflorescence was quickly removed by sulphur ointment. Like the other varieties, with which they may be intermingled, they are prone to become eczematous; they may, however, end by simple desquamation.

That the sebaceous glands are in a state of hypersecretion and the main cause of the greasiness is evident, for their contents may be seen in many cases oozing out from the follicular orifice in the form of oily drops; but the process is not confined to these glands, as the name of Seborrhœa corporis would imply. The epidermis surrounding the orifice, as well as that of its infundibulum, is altered from the very first, and it undergoes a process of parakeratosis or incomplete cornification. This is masked, as the normal desquamation of the skin is masked, by the fat and water of the sebaceous matter and sweat, and possibly by the eleidine, the essential epidermic cell fat; but by removing the grease by a little soap-spirit or ether spray the furfuraceous scales are easily revealed. In less greasy skins the presence of these scales may be seen without any such preparation.

On the upper part of the trunk, where the sebaceous glands are distributed at regular distances, as if by a machine, and where as a rule the hairs are mere lanugo, the arrangement of the outlines is correspondingly geometrical, but on the face where the distribution of the glands is very irregular both in size, order, and quantity, this clear outline is not retained. Still the same process is clearly traceable; we have the yellow patches, generally much larger, smooth if

the skin be oily, level-edged or surrounded with the same edge of follicular papules as on the trunk, or by an edge which is either merely raised, plugged, squamous, or eczematous, and usually clearly enough cut out to be marked as an outline by a lead pencil.

In the naso-labial furrow the configuration is generally lost, but the yellowish, discoloured skin in this spot, either with or without apparent inflammation, is the commonest of all the seborrhoic manifestations. The dirty, yellow-brown disfiguring patches on the chin and corners of the mouth may be associated with nothing more than slight plugging of the sebaceous glands or only slight pityriasis; the frequent presence, however, of an edge of inflamed, desquamating, oozing, suppurative follicular papules shows that we have here the same lesion as the *Lichen circumscriptus* or *Seborrhœa corporis* of the chest and back, though modified by the difference of ground.

On the chest and back it may, even in the middle line, the chosen land of the *circinaria*, be seen in its slightest development as a faint yellowish patch or ring, showing no furfuraceous scaling until scratched, and not necessarily a trace of papulation. It is too faint even to attract a patient's attention, and would probably escape the eye of any medical man who was not specially interested to look for it. If we follow such a patch out of the pronouncedly sebaceous area, we find that it loses its yellowish tinge, and the scales become dryer and whiter, whilst it may lose the regularity of its outline or become discoid.

If these patches, even when yellow-centred and with papular edges, are traced up from the forehead into the scalp, they will be found to be continuous with a pityriasis of the scalp skin. That this pityriasis is that described by Sabouraud I have several times found by observing the development of isolated discs or circles after washing the skin thoroughly as he suggests, and observing how the new efflorescence develops. I saw it only a few days ago on a young lady who had been to see me about four days previously with her hair full of greasy scales, and a seborrhoic patch which I had then seen on the lower cheek, just on the outer side of the chin, therefore, just outside the area of the large glands, had become a dry, white, squamous patch—a typical pityriasis alba.

When the yellow patch—it is really a dirty yellow ochre colour, but may be any shade between that and light brown—has become

inflamed or hyperæmic, we may note that the corresponding lesions on the same patient just beyond the frontal aspect of the face, as on the jaw and neck, look somewhat like red patches of a chronic eczematous eruption which are scaling freely, or even like a faint patch of psoriasis. The resemblance to psoriasis may increase as the seborrhœic area is left behind, until when the tip of the elbows are reached, we may find a condition clinically indistinguishable from the typical dry psoriatic lesion.

Thus we have two primary elements, one the oily seborrhœic, the other the dry pityriasic which when combined may produce the appearance of a distinct disease, a squamous patch, or circinate eruption, which if it becomes erythematous may tend to form a distinctly psoriatiform eruption. At any stage the eruption may become acutely eczematous, and spread as a papular rash, without particular form, until perhaps some stopping place is reached, such as a flexure, when the characteristic circinate lesion may form again more or less distinctly.

Sabouraud contends that the pityriasis is simply superposed on the seborrhœa, and has no influence on the seborrhœic process. The greasy-looking pityriasis of the scalp, for example, is only greasy in appearance; it is a pityriasis steatoides, and not steatosa. The greasy feeling on which we have laid so much diagnostic stress is produced by the exuded serum, which is brought up, together with fat, by the passage of white corpuscles through the epidermis (exocytosis), and which clings to the scales in clumps. Indeed, he finds that when apparently greasy they contain less grease than the scales of normal desquamation. Clinically, however, the scales from an isolated pityriasic patch look much more greasy, and will grease paper much more readily than those from the skin around. Until we have a better method of estimating and analysing this grease* and ascertaining the normal standard of greasiness of the individual patient, I hardly see how this important question can be decided.

* Audry, in his article on "Seborrhœa," gives a most instructive note on our inability to estimate the character of the skin fats. All our knowledge of them has been so far derived from the histological action of osmium peroxide, and it has been proved that this reagent stains olein, but does not stain stearin and palmatin, and that it also stains a number of substances which are not fats, but of proteid character. Analyses of matter from the sebaceous glands, made by Hoppe-Seyler and Schmidt, show only about 4 per cent. of fats, and make no mention of olein as one of the constituents, only of palmatin.

Sabouraud seems to have under-estimated the peculiar clinical characteristics of the combination of the pityriases with seborrhœa, especially their liability to become eczematised. Nor does he sufficiently recognise the therapeutic unity of the resulting dermatoses.

The action of various microbicide remedies on the greasy eruptions, and more particularly of sulphur, is known to everyone, and is quite different from that of its action on either the seborrhoic or pityriasis element apart. The readiness with which they can be removed by means of such applications, and their peculiar tinea-like method of growth, long since suggested their microbic origin (Besnier, 'Eczéma parasitaire,' 1881). Indeed, as I happen to know, it was an investigation into the various diseases which were so influenced by sulphur, which first led Unna to the formation of his synthesis of *Eczema seborrhoicum*.

One of the most important subjects of future dermatological study is the relationship of the various scaly dermatoses which may be associated with seborrhœa. I think I was the first in 1889 to describe this close relationship of the eruptions of psoriasis and the *Eczema seborrhoicum psoriasiforme* of Unna, and to draw attention to the impossibility at times of diagnosing between them. Since then I have continually pointed out in my clinic the transitions from one to the other. They are most frequently seen in the neighbourhood of the circinate *Seborrhœa corporis* eruptions about the chest and back, as minute solitary follicular papules with greasy scales. The further they are from the middle line the whiter become the scales, until they gradually merge into the typical gutta of *Psoriasis punctata*. On several occasions I have seen the first outbreak of psoriasis begin in this way. Twice within the last few months I have observed in typical psoriatics of years' standing the acute development of Unna's *Eczema seborrhoicum*. In one case, that of a very intelligent man, who knew his psoriasis well, the eruption of the bright red gyrate squamous eruptions spread from an old psoriasis patch, and the face, scalp, and back presented lesions which no one would hesitate to describe as those of *Eczema seborrhoicum* or *Séborrhéides psoriaticiformes* or the *Seborrhœa corporis* of Duhring. The other was the case of a young lady who had been afflicted with a most persistent and disheartening psoriasis for years, which relapsed continually, so that she was never free from crops of

papules. Last June I ordered for her a very strong ointment of salicylic acid and chrysarobin, ol. rusci and soft soap, according to the formula of Dr. Dreuw, one of Unna's assistants. This she took home and used for a month on her own responsibility, and succeeded in almost flaying herself. It was not, of course, used higher than the trunk, nor on the ano-vaginal region. At the end of the month she returned with the body perfectly clear, and it remained clear for months. The scalp was the only region in which any trace of eruption persisted, where any remedy was difficult of thorough application owing to the extraordinary denseness of the hair. Some six weeks ago she returned to me, not with Psoriasis vulgaris as before, but with a greasy face, a typical corona seborrhoica and Unna's circinate Eczema seborrhoicum of the anus and vulva. She remains, as she always has been, perfectly strong, healthy, and active. On the shoulders are two or three red spots about 1 cm. in diameter which might be psoriasis or the psoriatiform eczema seborrhoicum of Unna, but which do not show the type forms of either. The whole body is still perfectly free from the lesions of psoriasis.

I will not attempt to explain these transitions, for until we know more of the nature of their causes it is impossible to do so. But they are not uncommon, and the connection between the two has been already pointed out, I believe by Török, Norman Walker, and perhaps others. But it is curious why the possibility of such a connection has not been acceded to by our authors. It is the sanctity of Psoriasis which had to be respected. Unna drove up to the gates, but was held back by the chain of his Eczema; Audry is compelled to stop short by the restrictions of his Séborrhéïdes eczématisantes. He recognises that you may have eruptions so like psoriasis that you may have to wait for years, until at length they eczematisé, then you know that it is not the real "hereditary, incurable" Psoriasis, the "congenital deformity," but a mere sheep masquerading in wolf's clothing.

Sabouraud has taken the other direction and has erected a standard test in the shape of a leucocytic infiltration which passes through the epidermis as far as the horny layer, under which it forms a little abscess. He has in this way cut off half the eczematising seborrhôïdes and added them to psoriasis to make a group of "Psoriasides." He has dug his own boundary river and any doubtful "seborrhôïde"

which can utter the shibboleth of the *petit abcès miliare* passes at once into the Gilead of Psoriasis.

It seems a pity that writers of such distinguished merit should bias their observations by the limitations of terms for which we are obviously not ready. Of this, the fact that each one objects to the others' terms is sufficient evidence, and encourages me to state my own view without terms and without theory, but simply as the result of long clinical observation. There is an affection of the epidermis, characterised by abnormal greasiness and the formation of horny plugs in the pilo-sebaceous infundibula. There is a series of pityriasic eruptions beginning with a simple patchy, or circinate pityriasis, and ending by a series of unbroken steps with psoriasis. These certainly have the aspect of microbic affections, and may be Psoriasides in a wide sense; they may become eczematous, especially when developed in conjunction with the seborrhoic state, but are not Eczema; and they may be influenced in their aspect and evolution by the seborrhoic condition, but are not Seborrhoïdes, unless that term be confined strictly to those cases in which they are combined with the seborrhoic condition to form a seborrhoic dermatitis.

SOCIETY INTELLIGENCE.

DERMATOLOGICAL SOCIETY OF LONDON.

THE Annual General Meeting of the above Society was held on Wednesday, May 11th, 1904, Dr. J. J. PRINGLE in the chair. The minutes of the previous meeting having been read and confirmed, the following gentlemen were elected to serve as officers of the Society for the ensuing session, 1904-1905:—Council: H. G. Adamson, T. Colcott Fox, Willmott Evans, E. Graham Little, Malcolm Morris, J. A. Ormerod, J. J. Pringle, J. H. Sequeira, J. H. Stowers, Norman Walker. Treasurer: H. Radcliffe-Crocker. Secretaries: J. Galloway, Arthur Whitfield.

The Treasurer's and Secretaries' reports were read and adopted.

A vote of thanks to the Secretaries for their services was proposed by Dr. Radcliffe-Crocker and carried unanimously.

The following cases and specimens were demonstrated :

Dr. H. G. ADAMSON showed a well-marked example of *Urticaria pigmentosa* of the *macular* type in a boy aged 2 years. The eruption had appeared at the age of four months, and the mother remembered the lesions only as brownish patches from the first. The boy had always had good health. The only trouble from the skin had been a little itching with swelling of the patches after the bath. The macules were of a deep yellowish brown colour, of various sizes, the largest being the size of a shilling, and were closely set over the whole trunk and limbs, except on the face and hands, where they were few and pale. There were no nodular lesions, no lesions of mucous membranes, and no atrophic scarring. Urticarial swelling of the lesions could be produced by friction.

Mr. FRANCIS JAFFREY exhibited a man with pigmentation of the mucous membrane on the inner side of the cheeks and on the palate. The condition was discovered accidentally.

Dr. GRAHAM LITTLE showed a case of *Lupus erythematosus* in a young lady aged 29. She had had the disease since the age of fifteen; at the present time there were very numerous patches of congestive type which recalled Dr. Radcliffe-Crocker's description of "telangiectic *Lupus erythematosus*," distributed over the face, nose, forehead, and ears. She suffered also from lesions, which were possibly chilblains, on the hands in cold weather, but in any case the circulation was obviously sluggish. There was extensive and severe seborrhœa capitis. There was no albumen in the urine. She had from time to time a purulent discharge from the right nostril, and both nostrils, in fact, at the present time showed chronic inflammation of the mucous membrane. There was no tubercular history, nor sign of tuberculosis in the patient. She was inclined to be constipated, but otherwise seemed in good general health, being well developed and active. Some of the telangiectatic lesions had been treated by electrolysis with apparent benefit.

Dr. J. M. H. MACLEOD showed (1) a case of a *peculiar follicular eruption* of the Lichen pilaris type, the precise nature of which

was undetermined. The patient was a robust married woman aged 46, the wife of a coachman, and the mother of four children. She had enjoyed exceptionally good health, and there was no history of tuberculosis or other hereditary taint in her family. About six months before she came under observation she had had a series of domestic troubles; her brother had died while she was nursing a dying father, and several other misfortunes had occurred which made her nervous, anxious, and worried. It was at this time that she became aware of the eruption. She noticed it first as a roughness of the skin, which she compared to goose-flesh, affecting the extensor aspects of both forearms and extending down to the hands, and with this was associated a moderate degree of itching in those regions. From the arms the eruption spread on to the chest and abdomen, where it came out in crops. When she presented herself for examination at Charing Cross Hospital a month before she was exhibited the dermatitis had the following distribution and characteristics. It was a patchy eruption and symmetrically distributed on the temporal regions and behind the ears, on the sides of the neck, on the inner and lower aspects of the breasts, on the sternal region, abdomen, lumbar region, inguinal regions, in the popliteal space, and very slightly on the extensor aspects of the forearms. The initial lesions were acuminate follicular papules from which projected small horny spines, which were brownish black at the tips and the longest of which projected about 1 mm. On running the hand over the surface an impression suggesting a nutmeg-grater was given. Many of the papules were surrounded by an inflammatory halo, and they all seemed to begin as inflammatory lesions. When they involuted a brownish-purple stain was left, and in several instances a smooth, shiny atrophic macule of the same colour and somewhat suggesting in shape a lesion of Lichen planus. The lesions varied in size according to the size of the follicles, being larger on the breasts than on the sides of the neck or inguinal regions. They were regularly dotted over the skin according to the distribution of the follicles, being close together about the umbilicus and separated as much as a quarter of an inch on the breasts, owing to the stretching of the skin there. The skin between the papules was as a rule healthy, but in a few situations the brownish-purple macules had coalesced to form irregular patches. One of the largest of these patches was situated in the median aspect of the left

breast, and was irregular in outline, made up of a number of pigmented shiny macules, and was about an inch in length. There were several lesions of the same character in the inguinal regions. These were in the form of brown streaks about an inch in length and running parallel to the natural folds. On the lumbar region there was a faintly pigmented stippled patch about the size of the palm of the hand. Associated with the eruption on the trunk and limbs there were brownish-purple pigmented patches situated behind and in front of the ears and spreading up on to the temporal region of the scalp. These lesions were dotted over with fine whitish adherent scales which gave the surface a slightly opalescent character, and on examination with a lens gave it the appearance of shagreen. Where these patches had spread up on to the scalp the hair had become much thinned and in places had completely gone. At the time of exhibition the scaliness had been removed by a mild salicylic ointment, and the patches were then smooth and atrophic. The lesions on the scalp belonged to the same category as those elsewhere, and seemed to be the result of the coalescence of involuted follicular papules. The patient had a certain degree of pityriasis capitis, and there was a general thinning of the hair besides the more marked local defluvium. The mucous membrane of the mouth was examined, but, save for a lentil-sized purplish papule on the tongue, which the patient said had been present for years, it presented no abnormality.

There were no warty or greasy lesions present. Unfortunately a biopsy was not obtained, but it is questionable if such would have thrown much light on the case.

The eruption was of special interest owing to the characters of the individual lesions, and to the difficulty it presented with regard to diagnosis. The affection did not quite conform with the "*Lichen pilaris seu spinulosus*" of Devergie, or the "*Keratosis follicularis spinulosa*" of Unna. The pigmentation which resulted from the involution of the lesions did not suggest the disease described by Devergie, nor did the age of incidence, as *Lichen pilaris* usually occurs in children. On the other hand, the distribution of the eruption, its symmetry, and the initial inflammatory follicular lesions showed that it was closely allied to Devergie's disease. The facts that it was arranged in patches and came out in crops, and was not universally distributed, and also the inflammatory disturbance associated with it

negatived the possibility of its being a case of the milder affection named by Brocq *Keratosis pilaris*, and by Unna *Keratosis supra-follicularis*.

In distribution it suggested both "*Acanthosis nigricans*" and Darier's "*Psorospermiosis follicularis vegetans*" (*Keratosis nigricans* and *Keratosis vegetans* of Crocker), but the absence of acanthosis on the one hand, and the patulous follicles with greasy crusts and warty growths on the other, showed that it differed in nature from both these entities.

The fact that it came out synchronously with a severe nerve strain, and that it was associated with a good deal of irritation and itching, as well as the pigmentation and atrophy, showed that the eruption, though attacking the pilo-sebaceous follicles, was closely related to *Lichen planus*.

(2) A case of *Lupus erythematosus* affecting the face of a boy aged 16 years. On the skin over the right malar region, there was a slightly raised pinkish patch formed by the coalescence of two circular patches each of about the size of a sixpence. On the left malar prominence there was a somewhat larger oval patch. These patches at the time of exhibition were slightly raised, had a depressed scaly centre, and were surrounded by a faint, narrow, inflammatory zone. At first sight they bore a striking resemblance to the lesions of *Erythema multiforme* of the iris type. Beneath the right side of the mouth there was an irregular scaly patch, and also a smaller one on the right side of the nose. The lobules and borders of both ears were scarred, and showed traces of the disease. The lesions on the face had a duration of only four months. The boy appeared to be healthy, but on questioning him it was found that he had been an in-patient at Great Ormond Street Hospital, suffering from Bright's disease, and on examining his urine it was found that it contained albumen.

The case was demonstrated as showing the close relationship which exists between *Erythema multiforme* and *Lupus erythematosus*, affections which appear to differ rather in degree than in kind, and also the association of the disease with the state of his kidneys, and the probability of its having resulted in this case from toxins produced by faulty metabolism. When first seen the patches were even more similar to the classical lesions of *Erythema multiforme* than they were when the case was exhibited, and his case sheet was

at first labelled Erythema multiforme. It was thought at that time that the patches would soon involute, but instead of that they had flattened down, become scaly, and taken on the easily recognisable characteristics of Lupus erythematosus.

(3) Two cases of a *white-spot affection* of the skin in a mother and daughter. Affecting the neck of the mother there were numerous small whitish shiny spots, varying in size from that of a pin's head to a split pea. These were white or pearly in colour, some being round in outline, while others were irregular or angular, and surrounded by a red inflammatory halo. Some of them could be distinctly felt on the skin, while others were depressed and atrophic. They strongly suggested small lesions of *Morphœa guttata*, and were similar to lesions which have been from time to time described in association with *Morphœa*, for example, Duhring reported a case of "*Morphœa with maculæ atrophicæ*," in the *American Journal of Med. Sci.*, November, 1892, in which lesions closely corresponding to those in the present case occurred in the neck of a woman aged 55.

The daughter was a child aged 11 years, and she presented numerous white macules irregularly distributed on the abdomen. These did not show any evidence of inflammation, and they could neither be felt nor were they definitely atrophic. The mother said that they were gradually increasing in number and spreading up on to the chest, and she was afraid that the face also would be attacked. The lesions on the child were more irregular in outline than those of the mother, and bore no distinct resemblance to *morphœa*. She was suffering also from a papular pruritic eruption on the legs, but it did not seem to be connected with the white spots, as it had only been present for a few weeks, while the white macules had a duration of several years. There was no history of a previous eruption that had involuted and left these white markings. The nature of the eruption was undetermined; the possibility that it might be related to *morphœa* as in the case of the mother was considered.

Dr. RADCLIFFE-CROCKER disagreed with the diagnosis of *morphœa* in the mother's case, and suggested that they were scars from some previous eruption, and Dr. COLCOTT FOX raised the possibility of their being lesions of *Lichen planus atrophicus*. With regard to the child, the opinion of the members was undecided, and no definite diagnosis was put forward except that they were possibly early lesions of *morphœa*.

Dr. ORMEROD showed a woman who had been seen by him only once. On the neck (where the rash had begun twelve months ago) were areas of deeply-stained slightly prominent papules. On the abdomen were similar areas, but here the papules were moister and more prominent (vegetating). On the forearms were slightly reddened, discrete, itching papules, apparently connected with the follicles.

Most of the members thought this was an example of *Darier's disease*. It is hoped that a more detailed report will be published later.

Mr. GEORGE PERNET showed a case of *congenital Pemphigus* (*Epi-dermolysis bullosa*). The patient was a boy, aged 15, who first came under observation on April 5th, 1904, at the Skin Department, University College Hospital. The disease dated from birth. Bullæ either with clear or more or less hæmorrhagic contents came out on the hands and feet, elbows and knees, also on the fronts of the legs. They resulted not only from injuries, but also occurred spontaneously. The patient was quite decided about the latter mode of formation, although it is of course possible that slight injuries may have been overlooked by him. The nails, both of the fingers and toes, were non-existent. The teeth were good, if a little irregular. The mucous membranes of the lips were also involved by the eruption. A peculiar and rare feature of the case was the condition of the eyes. Mr. Pernet was indebted to Mr. Percy Flemming, who had sent the case on from the Eye Department to the Skin Department, University College Hospital, for the following brief details. Right eye.—Cornea clear in centre, periphery hazy. The haze is superficial beneath the epithelium. Vessels run into the cornea a short way from limbus. Left eye.—Whole cornea hazy, but centre less so than periphery. Three large superficial vessels run over on to the cornea, and can be easily moved over the latter. These vessels are not derived from the anterior conjunctival vessels. The superficial parts of the cornea with these vessels slide upon the underlying deeper layers. The condition was analogous to that of the skin. The eyes were stated to have become affected three months after birth. Another point about the case was the occurrence of warty-like, horny excrescences about the palms, according to the patient the result of friction. At first sight these lesions appeared to be perhaps the same condition originally as

that of the skin generally, but modified by position. There was hyperæmia, and the small growths under examination were extremely like warts, which may have been spread by inoculation. On the elbows and knees there were atrophic areas which had been the seat of inflammation. On pinching up these atrophic portions between the fingers an appearance something like ichthyosis was produced. There was no other case of the kind in the family.

Dr. St. John showed—1, a girl aged 17, suffering from a *granuloma of the scalp*. In October, 1903, the patient was admitted into the Laidlaw Hospital for the removal of a tumour of the scalp. The swelling had been noticed first seven years before, and had gradually extended. It was about the size of a half-crown piece, flat and raised above the surface a quarter of an inch. It was of a dark red colour, and was rather soft to the touch. It was free from hair. The growth was excised, and the base scraped and cauterised. Microscopical examination showed it to be a *granuloma*, with a few giant-cells. Its structure did not suggest a tuberculide. No tubercle bacilli or ring-worm fungus were found on staining. Rapid healing followed the operation, but in April last, the growth had reappeared at the margin of the scar, forming a flat, soft, ring-like swelling round the cicatrix.

2 A woman aged 48, suffering from a *symmetrical tubercular eruption* on the feet and hands. The patient had been married twenty-four years. She had had no children, and there had been no miscarriages. For twenty-four years she had suffered from chilblain-like swellings upon the hands and feet. At first she was free from them in the summer but recently they had been persistent. The swellings broke into sores, and these on healing left rather deep scars. One of the patient's brothers had died from phthisis, and she herself had suffered from tubercular glands in adolescence, but had had no other illness. On the dorsal aspect of the feet and toes there were numerous scars, of circular shape and about a quarter of an inch in diameter. The more recent were red and pigmented, the older ones pale. A few red raised spots had appeared while the patient had been under observation, the centre of these necrosed leaving superficial ulcers which slowly healed. On the hands there were fewer scars, and two or three of the red indolent swellings. The toe nails were deformed.

Dr. RADCLIFFE-CROCKER and others considered the case to be one of folliculitis. Dr. COLCOTT FOX preferred to call it a chronic necrotic tuberculide.

(3) A lad aged 17, who had been for some months under the care of Dr. Sinclair of the Post Office, suffering from separation of the finger and toe nails. The distal part of several nails of the fingers and toes of both sides were raised from the bed, forming tunnel-like cavities. From these cavities scrapings had been taken, but no trichophyton had been found. The removal of the affected parts and the application of strong antiseptics to the exposed surfaces was advised.

Mr. ARTHUR SHILLITOE showed (1) a *case for diagnosis*. It suggested either dysidrosis or eczema of the hands. The patient had acquired gonorrhœa some four months ago, which had subsided at the time of exhibition. Latterly he had been complaining of extreme stiffness of the limbs on rising in the morning; this only passed off after he had been up and about his work for an hour or two.

About a week ago he had first noticed the formation of collections of very small vesicles on his fingers. He had a somewhat harsh skin, perspired but little, and there was no irritation.

(2) A case of *extensive cicatrisation* in a patient with syphilis (shown for Mr. Gibbs).

This patient, aged 35, was a country labourer, married, but living apart from his wife.

It was difficult to obtain a definite history from him, but he thought he must have caught something from a female trãmp to whom he gave a lift in his waggon about two years ago. For a year he sought neither treatment nor advice, and during that time he noticed only some yellow spots of discharge on his shirt.

About twelve months ago he had spots on his body, for which his club doctor gave him a lotion. Shortly after this the skin of the penis began to turn blue, and finally dropped off about eight months ago, leaving a much scarred organ, with a fistulous opening at the side. He said he had had many sores on the parts affected which finally resulted in the present condition.

His habits might be described as being very careless and neglectful, and up to eight months ago he was drinking heavily.

He was a thin, fairly-nourished man, height 5ft. 10in., weight 9st. 7lb. When stripped a large area of cicatrisation was noticed in the "bathing drawer" region. A large pair with the back cut out

more on the left than the right would about occupy the affected area. In this cicatrisation the penis was involved. The upper margin of the parts affected was clean and white, but about the lower edges ulcerations in various stages of repair might be seen.

The skin, though cicatrised, showed no signs of contracture; the penis on the other hand was contracted. He urinated through the remains of the urethral canal and through the fistulous opening on the right side of the penis. On the outer side of the left suprapatellar region and on the inner side of the right were two large gummata.

3) Photographs of a case of "varioloïd syphilis."

THE DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

A MEETING of this Society was held on Thursday, April 28th, Dr. STOWERS in the chair.

The following cases were exhibited:

Dr. ALFRED EDWARDS showed a patient, aged about 20, suffering from an eruption of *lichen* occupying nearly the whole of the parts of the body covered by clothing. Single lesions as well as numerous large patches exhibited the characteristic appearances of the flat angular papule of *Lichen planus*. In addition to these patches, which were conspicuous by their higher colour, there were large areas (especially about the region of the axillæ both back and front) solely occupied by follicular papules, so-called *Lichen pilaris*. These latter, pointed papules, were crowded closely together and gave the skin a grater-like appearance, particularly on parts which would be naturally exposed to most friction from clothing, that is to say around the neck, near the arm-pits, both in front and behind, over the shoulder-blades, and around the loins and buttocks. With a lens the follicular acuminate papules were not found in the quiescent state of a simple hyperkeratosis so often met with on the external surfaces of the upper arms and on the knees of those who neglect the frequent use of soap and water, but each papule was in this case seen to contain a trace of dried exudation as well as scales and hair, and to be surrounded by a quite distinct though very small areola of congestion. There was no

striking confluent redness, *almost scarlatiniform*, as is seen in the rare cases of *Lichen acuminatus*; still the condition strongly suggested a difference in severity rather than kind between the affections named. There were large patches of milk-white papules on the buccal mucous membranes. The general health and strength of the patient were good, and there was little irritation locally.

Microscopic sections showed a thickening of the horny layer, an increased number and size of the individual cells of the granular layer, and the usual sharply defined cell-infiltration in the upper part of the cutis vera. In some parts there was an extensive blocking for a considerable distance downwards of the sweat-pores with horny substance. About the mouth of the sweat-ducts, granular cells were so numerous as to give the ducts an appearance not unlike that of small follicles. Here and there were indications of inflammatory disturbance in and about the sweat-glands themselves. In some parts it could be seen that the primary inflammation had occurred around the sweat-pore and affected the hair-follicles merely by extension; the marked collection of horny substance, the increase of the granular layer, and the cell-infiltration in the cutis being entirely confined, or nearly so, to the side of the hair towards which the lesion had developed.

In the follicular papules it could be seen that the hair had been prevented from passing outwards owing to the blocking of the upper part of the follicle, and that consequently the hair and its follicle had become curved and twisted. A sharply defined area of cell-infiltration could be seen involving the hair papillæ.

With regard to treatment Dr. Eddowes said that some years ago when he first noticed that *Lichen planus* was so closely associated with disturbance of the sweat-apparatus it seemed to him likely that the epidermis might be deprived of its proper physiological acidity, and therefore it occurred to him to try the effect of boric acid ointment. The result had surpassed his expectations in all cases of lichen, and he recommended it as having a great advantage, especially over mercurial and lead preparations, in that it was not poisonous even when applied to very large surfaces.

(2) As promised at a previous meeting when he showed a case of *acute squamous eczema* Dr. Alfred Eddowes now showed microscopic sections and scrapings from the case. The sections showed that even at the apparently dry sharply-defined erythematous borders of the

patches minute eczematous vesicles were formed. There was little or no cell-infiltration in the cutis. In the stained scales there were enormous masses of staphylococci, and scattered among them a good sprinkling of Unna's bottle bacilli, many of which were composed of three or even four elements in a row, and occasionally the two portions of the "bottle" were of nearly equal size.

In face of these preparations and the sharply margined circular outlines of the single and confluent patches in the case from which these preparations had been taken it was difficult to avoid the conclusion that this was a parasitic affection. The patient had, of course, a vulnerable skin, and as the members of the Society would remember, the toxin acting from within was obviously alcohol in that case. Had the case not been checked soon it would have undoubtedly gone on to general exfoliative dermatitis.

Dr. GRAHAM LITTLE showed (1) a man, aged 56, with a symmetrical deeply-infiltrated affection of the skin of both cheeks near the angle of the jaw. These patches had persisted for fifteen years, and there was considerable scarring as well as active disease. The hair of the beard grew over the patches, but in a straggling fashion. On the back of the neck on the left side there was a recent patch the size of a florin. This had developed within the last two months, and was at the present time an infiltrated swelling breaking down in the centre, and rather like a gumma. On the right and front of the neck there was a similar and smaller, and still more recent sore. But no history of syphilis could be obtained. The man was a "city missionary," and had healthy offspring. On the other hand, a younger brother had had a similar affection of the face since the age of six years (possibly Lupus). The diagnosis between tubercular and syphilitic disease was difficult; the onset at forty was against tuberculosis, although the extreme chronicity of the disease on the cheeks was more in favour of this diagnosis. The symmetrical distribution was also perhaps unusual in syphilis. The latter was, however, the diagnosis adopted by the exhibitor, and the recent developments were regarded as a recrudescence.

Dr. STAINER thought the case was probably tubercular.

Dr. WILFRED WARDE thought the case might be an instance of Milton's "Lupoid sycosis." The way in which the hairs of the beard were involved suggested this.

Mr. HITCHINS considered syphilis the only possible diagnosis.

(2) A case of a *tertiary ulcer*, simulating rodent, in a woman aged 30. There was no history of syphilis here, and no previous affection of the skin. The ulcer had commenced as a nodule seven months before; it had begun to ulcerate four months ago. At the present time there was an excavation of considerable depth, and covering an area of about $1\frac{1}{2}$ by 1 in. at the left side of the ala of the nose, the cartilage of which was ulcerated through. The case was improving rapidly on iodides.

(3) A case of *Lichen planus verrucosus* in a man of about 60. He had been an in-patient at St. Mary's Hospital for "eczema" some years ago, and still had recurrent attacks of this. But a twelvemonth ago he developed an attack of another kind on the inner side of the right thigh, consisting of small "pimples" (papules), which were intensely itchy. This patch was still present, and covered an area of about 6 by 4 in. In the middle of this patch a warty excrescence had grown until it was now the size of the kernel of a Brazil nut. The man was in poor general health. The case was peculiar in the history of well-authenticated recurrent eczema, in the fact of the lichen patch being single and in the development of the verrucose type in this position.

The diagnosis of *Lichen planus* was generally accepted.

(4) A case of *Lichen planus hypertrophicus* coincident with another eruption of an indeterminate character. The patient was a man aged about 35. The disease had commenced sixteen weeks before, the legs and the trunk being simultaneously affected. At the present time he had on the legs numerous small patches of hypertrophic *Lichen planus* with typical small papules of *Lichen planus* in the neighbourhood of the raised plaques. Lesions of this type were not found above the thigh, but on the trunk and arms he had very numerous patches of circinate, slightly scaly, pinkish red dermatitis, which were also itchy. The redness was marked, and the limits of diseased and healthy skin well defined; rather more so, in fact, than was usual in seborrhœic eczema, which was, however, a diagnosis suggested. The patches were of sizes varying from that of a sixpence to a half-crown, and were generally circinate, but sometimes of an oblong irregular shape. They were most thickly distributed over the prominence of the left breast, the back, and

the arms. They were not found specially on the sides of the body. The mouth was not implicated at all. The patches on the trunk were very like early stages of *Mycosis fungoides*, and this was an alternative diagnosis. But the lesions on the legs were absolutely typical of *Lichen planus*, and it was a question whether there were not here two diseases of synchronous development. It was at any rate certain that the two types of lesion would fit no single disease.

Most of the members agreed with the diagnosis of *Lichen planus* as regards the eruption on the legs. There were various suggestions as to the nature of the lesions on the trunk and arms. *Pityriasis rosea*, *seborrhœic eczema*, *Mycosis fungoides*, were amongst the alternatives offered.

Dr. WARDE did not like to hear a case described as *Lichen planus* up to the knees and by some other name above that level, more particularly as the whole eruption seemed to have developed at about the same time. He admitted that the eruption below the knees was a very typical *Lichen planus hypertrophicus*, whereas the patches above bore no kind of resemblance to that affection. But this did not suggest to him that there were two distinct diseases present; on the contrary this singularly interesting case supported in quite a remarkable fashion the view he had held for some time that *Lichen planus* was not a disease at all, not a pathological entity, but merely a clinical condition owing its existence to many causes and to several entirely distinct pathological phenomena.

(5) This patient did not appear, and her notes were submitted as follows:—She was a laundry assistant aged 22. Three months ago she came under the treatment of a general practitioner, with a sore on the upper lip which was diagnosed a little later as a *hard chancre*; the glands in the neck were enlarged in a manner supporting this diagnosis. She was seen by the writer of these notes a week ago, and at this time had a definite hard sore of the upper lip; a copious papulo-squamous eruption on the body and limbs, with mucous tubercles on the vulva and adjoining parts, and a breaking-down gumma on the middle of the front aspect of the left leg. This latter lesion had been at first mistaken for *Erythema nodosum*. The case was of great interest, inasmuch as it presented simultaneously in the same patient the hall-marks of primary, secondary, and tertiary syphilis. There was marked polyadenitis and syphilitic cachexia.

Mr. HARTIGAN showed a female, aged 46, with *tuberculosis of the lobules of both ears*. Twenty-four years ago she had her ears pierced by a jeweller with a "silver piercer" for ear-rings. Healing was delayed, and two years after the lobules began to swell; four

years later part of the right lobule was removed by operation, the wound healed but the resulting scar broke down last February and was at present ulcerated. The lobules were now red and tender, much swollen, and filled apparently with tuberculous material. The glands were not enlarged, and there was no evidence of disease elsewhere. She had been married twenty-three years, had four healthy children, and no miscarriages. A small piece was removed that day for the purpose of a biopsy, the tissue being very soft and gelatinous.

At the time her ears were pierced her brother was ailing; she often visited him, and he died of phthisis two years after. Further, the jeweller's wife was ill in bed at the same time, and she died shortly afterwards, presumably of phthisis also. The exhibitor did not think there could be any doubt as to the nature of the case, and it seemed to him to result from direct inoculation, and further it was interesting in that both ears were affected.

As regards treatment he proposed removing the lobules and using radium or X-rays.

The PRESIDENT concurred, and at his suggestion it was agreed to have a drawing of the case made for the Society's portfolio.

Mr. HARTIGAN will report the result of the biopsy at a future meeting of the Society.

Dr. V. H. RUTHERFORD showed a boy, aged 17, with *Urticaria pigmentosa* which began between three and four years ago in the arms, and then spread a few months later to the thighs and legs, and finally over the chest, abdomen, and back, all of which are now thickly covered with pigmented nodules. The flexor and extensor surfaces of the limbs are equally affected. The face, neck, palms, and soles are free. Most of the lesions are about the size of half a pea, slightly elevated, nodular, and red, the colour deepening on exposure to air. Some have run together to form imperfect rings, varying in size from a threepenny piece to a sixpence. A few are flat and macular. The buccal mucous membrane presents symmetrical white patches with a tendency to fine exfoliation. Itching has been conspicuous by its absence throughout the course of the disease, and there is no history of wheals or bullæ of any kind, although the patient may have overlooked them. Factitious urticaria, however, is easily and prominently developed on gentle friction.

The youth is of sallow complexion, has always enjoyed good health, and his mother is "absolutely certain that he had nothing the matter with his skin until four years ago," when the present condition commenced.

When the patient was first seen four months ago, the appearance suggested Lichen obtusus or papular syphilide, but nearly three months of antisyphilitic treatment failed to produce any alteration whatever.

The microscopic section exhibited in connection with the case was of an early nodule taken from the forearm, and presented (1) an increase in the ordinary pigment in the epidermal papillae cells and (2) characteristic infiltration of mast-cells crowded along the vessels in the upper layers of the corium and sparsely in the deeper layers. The preparation was stained with polychrome-methylene blue and the granulated protoplasm of the mast-cells took the stain staining well.

Mr. ARTHUR SHILLITOE showed (1) a case of *small papular syphilide*. The patient, aged 26, a well-made man 5 ft. 6 in. in height, and weight 11 st. 6 lbs., gave the following history. He was exposed to infection two weeks before last Christmas and again on February 12th. A week later, February 19th, he noticed on the right side of the sheath of the body of the penis a sore, now an indurated chancre somewhat larger than a shilling. Another week passed, February 26th, and a second sore, at the present time as large as the first and also indurated, appeared on the left side of the penile sheath. In addition he has a well-marked indurated collar chancre of the corona, but cannot say how long this has existed. Up to April 8th he appears to have been treated for gonorrhœa; on this date the rash first appeared, and when first seen by exhibitor on April 25th he was covered with a general, small papular eruption. His tonsils were greatly enlarged and ulcerated, and owing to the obstruction caused, deafness had been present about a week. Apart from the small papular, so-called lichenoid eruption the case was interesting as showing the presence of three large indurated chancres.

(2) A case of *papulo-pustular syphilide* of the so-called varioloid type.

A full description of this case will be published in a subsequent issue of this Journal.

Dr. STAINER showed a young woman aged 17 with *localised atrophy of the skin* of three years' duration. The lesions consisted of linear streaks about an inch in length occurring in three distinct areas on the front of shoulders and right breast. The eruption was attributed to the fact that the patient had increased very rapidly in weight during the past few years.

The members present agreed with Dr. Stainer's diagnosis.

Dr. STOWERS exhibited the following cases:

(1) A female, aged 31 years, with recurrent *Alopecia neurotica (universalis)*. The patient had been married eleven years, during which time she had given birth to five children, and alternately with each child had had a miscarriage. In addition she had had two serious illnesses, pleurisy, and later pneumonia. Her general health had been very unsatisfactory during the whole period owing to continued debility and depression of vital powers. With improved living and the assistance of remedies she was now improving both generally and locally.

(2) A girl, aged 9 years, with an unusually acute form of *Eczema pustulosum* involving the hands. On several occasions during the last four years she had suffered mild degrees of eczematous disorder on the flexures of the arms and legs. The intensity of the present eruption was probably accounted for to some extent by an irritating ointment which had been applied by the mother on her own responsibility.

(3) A photograph of a boy, aged 16 years, the subject of *Hydroa herpetiforme* (vesicular and vesico-pustular) of both ears, of fourteen days' duration. The eruption involved the entire surface of each ear (front and back), and was preceded by severe burning and itching. A few vesicles developed upon the cheeks and neck. The mother stated that the patient had had the same character of eruption involving nearly the same area of skin each spring and autumn (when cold winds prevailed), though varying in intensity, for sixteen years, *i. e.* each year since birth.

The twin brother is stated to have had the same "usually," but not every year.

Dr. WILFRID WARDE showed a case of *persistent œdema of the hand*

and forearm. The patient, a brass finisher, aged 42, contracted syphilis twenty years ago, for which he was treated during twenty-one months. Eight years ago he developed an inflammatory affection of the left palm, which is still present. Two years ago the back of the left hand and forearm swelled, and have remained swollen until the present time. There is marked hyperidrosis of the palms. The left palm is reddened, and shows many deep cracks, more particularly in places where there is much movement. On the back of the left hand and forearm there is a pronounced firm œdema, and the parts are swollen, white and cold, and pit on pressure. There are no swollen glands in the armpit or other evidence of obstruction. The patient uses the affected hand to turn a handle at his work.

CURRENT LITERATURE.

ON CYLINDROMA OF THE SKIN. S. NICOLAU. (*Archives de Médecine Expérimentale et Anatomie Pathologique*, No. 6, November, 1903, pp. 796—819, with photo-micrographs.)

CYLINDROMA is one of the most rare forms of tumour of the skin. The term was created by Billroth in 1856 to designate a tumour which he considered to be of glandular nature, made up of anastomosing cylinders of cells in the form of alveoli enclosing hyaline or sometimes finely granular masses, these masses being connective-tissue bundles undergoing hyaline degeneration and penetrating the cellular mass.

In an exhaustive paper on the subject, Malassez, in 1883, pointed out that the confusion that has since arisen is due to the circumstances that such tumours have often been described under other names and that many growths described as cylindromas are not really such. Malassez restricted the term strictly to Billroth's definition. He believed such growths to be of epithelial origin, either from the epidermis or from its glandular appendages, and attached especial importance to the invasion of the cellular mass by bundles of myxomatous tissue.

He excluded from this group (1) those cases in which there were cellular masses in the midst of a myxomatous stroma, but without characteristic hyaline masses within the growth, *e. g.* Butlin and Friedländer's cases; and (2) epithelioma with cystic formation due to colloid or mucoid degeneration of the cells of the growth itself.

Billroth and Malassez's ideas are generally accepted in France, but not in Germany. For Klebs, Marchand, Van Duyse, Volkmann, etc., these tumours are endotheliomata. Klebs proposes to replace the term cylindroma by that of "hyalogenous endothelioma." For others (Thomas, Delbet) the cylindroma is

not a definite type; such a myxomatous degeneration of the connective tissue may occur in epitheliomata or in sarcomata.

The above is a brief résumé of the author's review of the present position of the question. This is followed by a very careful and detailed account of the microscopical appearances in a personal case, and the inferences as to its pathology therefrom. The tumour formed a flat 5-franc sized almost gelatinous-looking disc which had begun as a small nodule three-and-a-half years ago on the neck of a male patient, aged 42 years. The tumour was excised, and the greater part of it cut in serial sections, various methods of hardening and staining being used.

It is here, however, possible only to briefly state the author's conclusions. The cylindroma is an epithelioma of the skin, constituting a distinct and well differentiated variety. The growth is made up of (1) cylinders of cells, for the most part anastomosing to form trabeculæ, and giving the appearance of a glandular structure (2) of cellular masses, which are really actively growing cylinders in which are formed cavities, the result of cellular degeneration. The most characteristic feature, however, is the mucoid degeneration of the connective tissue which has become imprisoned in the network of the trabeculæ formed by the cylindrical growths (and not grown into the masses as supposed by Billroth and by Malassez).

The group of epitheliomata called *adénoïdes*, on account of the resemblance in sections to glands, ought to be revised. The greater number of tumours described under this name, tumours composed of lobules or epithelial tubes, sometimes cystic, are probably *cylindromata*.

H. G. ADAMSON.

A NOTE ON THE ACTION OF RADIUM ON SOME ORGANISMS.

H. H. DIXON and J. T. WIGHAM. (*The Dublin Journ. of Med. Sci.*, March, 1904, p. 161.)

THE first experiment here recorded was made on the action of radium on growing seeds. These were exposed to the action of a tube containing 5 mg. of radium bromide. Whether the seeds were exposed before or after germination, the effect produced was slight and consisted in a reduction in the rate of growth of those seeds within a distance of 1 cm. from the tube. "In one case a seed germinated immediately under the tube, and the plant grew up in contact with it."

On one of the motile algæ, *Volvox globator*, the effect of radium was equally slight, but on still simpler structures, such as bacteria, a more marked action was detected.

Various micro-organisms were experimented upon, such as *B. pyocyaneus*, *B. prodigiosus*, *B. anthracis*, *B. typhosus*. The tube containing the radium bromide was supported over the surface of the cultures in a Petri dish, and was placed as close to them as possible, and it was found that organisms within a distance of 1 to 3 cm. from the tube failed to grow or were delayed. The writers consider that the radiations effective on bacteria are the β -rays, the α -rays being stopped by the glass of the tubes, while the γ -rays have a much greater power of penetration, and could pierce through several layers of glass which stops the effective rays.

Three degrees of inhibition were observed: (1) in some cases, where the growth of the bacteria was rapid, the radium simply retarded it; (2) in others, where growth took place as soon as the radium was removed; and (3) in the majority of cases, no growth occurred even after prolonged incubations free from the action of the radiations. The radium did not seem to act by injuriously affecting the medium on which the cultures were growing, but by the actual inhibition of the bacteria themselves.

J. M. H. Y.

ON THE QUESTION OF METASTATIC GROWTHS IN THE LYMPHATIC GLANDS IN RHINOSCLEROMA. A. KRAUS. (*Archiv f. Dermat. u. Syph.*, February, 1904, lxxviii, page 345.)

THE writer of this paper had the opportunity of studying two fatal cases of rhinoscleroma which occurred in the clinic of Professor Pick in Prague. They were both typical examples of this rare disease. Both patients were women, the one aged 69, and the other 34. In the former the glands on both sides of the neck were somewhat enlarged, and when they were removed and cut open they presented a greyish-red colour, and the cut surfaces were studded with white nodules. In the other case the submaxillary or neck glands were enlarged to the size of almonds, and when sections of them were made they also were reddish-grey in colour. A bacteriological examination of the glands gave pure cultures of the capsule-bacillus of rhinoscleroma which were similar to those obtained from the new growth on the nose during the life of the patient.

J. M. H. M.

HERPES ZOSTER ASSOCIATED WITH GENERALISED BULLOUS ERUPTION FROM PROLONGED ADMINISTRATION OF ARSENIC J. H. SEQUEIRA. (*The British Journal of Children's Diseases* vol. i, No. 4, April, 1894.)

SEQUEIRA observed a girl, aged 5 years, suffering from a first attack of guttate psoriasis, to whom three minims of Fowler's solution were administered three times a day. After three months' treatment the skin of the trunk commenced to pigment, and a month later the trunk presented the characteristic dappled pigmentation of arsenical origin, and a crop of vesicles and bullæ appeared all over the trunk, not on the face and extremities, but left no scars. At the same time a copious eruption of zoster appeared corresponding with Head's first lumbar area on the right side. There was no hyperkeratosis of the palms and soles, no muscular trouble, and no ocular, nasal or gastric catarrh. The herpetiform lesions left scars. The herpes and vesico-bullous eruption were presumably of arsenical origin.

T. C. F.

QUARTERLY SURVEY OF DERMATOLOGICAL LITERATURE.

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- Erythema Groups of Skin Diseases**, The Visceral Crises in the. WILLIAM OSLER. (*Amer. Journ. Med. Sci.*, May, 1904, p. 751.)
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- Erythema Pustulatum Grave**. L. MERCK and P. RUSCH. (*Archiv f. Derm. u. Syph.*, March, 1904, p. 99.)
- Gangrene**, A Case of, of the Right Foot occurring in the Newly-born. D. COTES-PREEDY. (*Lancet*, February 27th, 1904, p. 575.)
- Herpes Zoster**, Recurrent. L. G. HILL. (*Brit. Med. Journ.*, April 2nd, 1904, p. 781.)
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- Lichenoid Exanthem**, On a Peculiar. W. PICK. (*Archiv f. Derm. u. Syph.*, April, 1904, p. 411.)
- Lichen Planus**, Report of a Case of Bullous. M. F. ENGMAN. (*Journ. of Cut. Dis.*, May, 1904, p. 207.)
- Lichen Planus**, with Lesions of the Nails and Localisation on the Palpebral Conjunctiva. GAUCHER and DRUELLE. (*Journ. des Mal. Cut. et Syph.*, Tome xvi, No. 2, February, 1904, p. 108.)
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- Malignant Anthrax**, An Epidemic of Siberian Ulcer, with Remarks on Treatment. A. M. KUDISH. (*Russ. Journ. Skin and Ven. Dis.*, March, 1904, p. 295.)
- Neuro-dermatitis**, Chronic Linear, Some Cases of. V. MIBELLI. (*Monats. f. prakt. Derm.*, xxxviii, No. 9, 1904.)
- Pendinsk Sore** (Aleppo Boil), A Case of. P. J. PHROLOV. (*Russ. Journ. Skin and Ven. Dis.*, January, 1904, p. 12.)
- Psoriasis and Impetiginoid Eczema**. R. CAMPANA. (*Clinica Dermosif.*, January, 1904, p. 19.)
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- Purpura**, Lymphatic Leukæmia with, A Case of. F. C. SHATTUCK. (*Journ. of Cut. Dis.*, March, 1904, p. 118.)

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Atrophy, Symmetrical Cutaneous, with the Coincident Development of Syphilis of the Skin and Nervous System. J. A. FORDYCE. (*Journ. of Cut. D.* March, 1904, p. 155. Illustrated.)

Xeroderma Pigmentosum, with special reference to the Changes in the Blood. C. ADRIAN. (*Dermat. Centralb.*, February, 1904, p. 130.)

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Angio-keratoma, On the Tubercular Nature of, and on the Familiar Tubercular. L. PAUTRIER. (*Archiv f. Derm. u. Syph.*, March, 1904, p. 145.)

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- Paget's Disease,** Contribution on. J. FABRY and H. TRAUTMANN. (*Archiv f. Derm. u. Syph.*, March, 1904, p. 37. One plate.)
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TO ILLUSTRATE SIR DYCE DUCKWORTH'S CASE OF PEMPHIGUS VEGETANS.
(PHOTOGRAPH TAKEN AFTER THE DISEASE HAD EXISTED FOR ABOUT
TEN MONTHS).

scrotum the eruption began as red circles, about half an inch in diameter, which subsequently formed blisters. Three months ago his arms and hands became affected, and blisters formed, which at first discharged clear fluid. Subsequently the skin darkened and the part became painful and swollen as at the present time. The patient says that lately he has been more nervous and irritable, trembling without cause. The condition of his mouth has prevented him taking solid food.

Past history.—He was born in Surrey and has always lived an outdoor life in that county, and never been abroad. No history of syphilis, tubercle, or rheumatic fever was obtained.

Family history.—His wife and one son are strong and healthy. His mother and father are healthy. One brother suffers from rheumatism.

November 5th, 1902. *Present condition.*—The patient is a fairly well-developed man, with a dark complexion and black hair and beard. His temperature is slightly raised (99°) and his pulse is 88, of fair volume and low tension, and the artery is thickened; his eyes are natural; his hearing is impaired, more especially in the left ear. His lower lip is ulcerated and very tender. Ulceration has spread on to the face, and there are crusts in the beard round the mouth. The inner aspect of the mouth is red and ulcerated. The hard and soft palate are inflamed, the condition resembling aphthous stomatitis. The teeth are very defective and decayed. The breath is very offensive. The tongue is ulcerated and fissured, and the movements of the tongue are limited in all directions. Some hard glands are felt on both sides of the neck. The chest is rather barrel-shaped and the movements slight. It is resonant both in the back and front, and the breath-sounds are natural, and there are no additional sounds. The heart's apex-beat is not located, and the area of cardiac dulness almost absent. The heart-sounds in the fifth space (nipple line) are clear, but not very strong, and there are no added sounds at the base of the heart. The urine has a specific gravity of 1018, and contains no albumen and no sugar.

The skin.—The parts chiefly affected are the hands and lower half of the forearms, the feet and lower part of the legs, and the perineum and inner aspect of the thighs:

The hands.—The palmar surfaces are covered with very thick, hard skin that has a worm-eaten appearance. On the fingers and on

the back of the hands and extending up the arms the skin is of a blackish-red colour and much indurated and thickened, and the patient cannot bend his fingers. The surface is rough and covered with heaped-up brown epithelium. Half-way up both arms the induration seems to end abruptly in a definite raised margin. There is no ulceration on either hand. On the left hand there are sinuses from the old gunshot wound, and the thumb and two first fingers are contracted. On the flexor aspect of both elbows are raised warty or tubercular lesions, brownish-red in colour and symmetrical. Along both arms are the same stained, brownish, raised patches. In the axillæ the skin is deeply pigmented.

On the back the eruption is scanty and is polymorphous in nature. A few brownish patches are seen in one place; in another the eruption more closely resembles *tinea circinata* and consists of reddish slightly raised rings or segments of rings. A few small vesicles are also seen on the shoulder. All stages in pigmentation and induration are present, from slight redness, little more than a patch of erythema, to deep bronzing, with much thickening of all the layers of the skin.

On the feet the skin closely resembles that of the hands, but the epidermis of the soles of the feet is more hypertrophied. The surface looks almost honeycombed. On the inner aspect of the knees and thighs the eruption is very marked. On the inner aspect of the left knee is a large pigmented patch with a smooth polished surface. Between the thighs, and round the perineum, anus and scrotum, large flat raised bluish-red areas of skin are seen. The margins are defined. Several of these areas coalesce. The surface of these patches is moist and discharging. Ulceration has taken place in some of them. The smell is most offensive. There is great pigmentation of the whole skin, but more especially of the skin of the arms and legs. There the skin is very dark brown, much darker than that of a mulatto. The lesions seem to leave very dark pigmented areas which form irregular figures.

November 18th.—There is little alteration in condition. The patient obtains great relief from nightly baths of bran and borax. The feet are still very painful, but the thickened cuticle on both hands and feet is slowly being removed. On the outer limits of the pigmented areas in the right axilla some bullæ have appeared, the size of a pea. These contain at first clear fluid. Later this becomes opaque, the bulla ruptures and a raw surface is left. The skin of the bulla appears thicker than that met with in an ordinary bullous condition. The bullæ,

or rather the ulcerated surfaces, coalesce with one another and with the pigmented raised areas, and this appears to be the way in which the disease extends. The fluid of a bulla on examination is found to contain eosinophile cells and staphylococci.

November 24th.—The growths in the axilla are more warty and seem to be fissured. The smell is more offensive. A small pressure sore has formed over the right trochanter. Ol. Deelinæ is being used with the addition of 5 per cent. of creosote. As this caused smarting of the fissures, eucalyptus oil was substituted for the creosote. The use of this has been beneficial, making the patient more comfortable.

February 1st.—The legs and body are more pigmented. The patient has had an attack of bronchitis. The hands are less stiff, and the cuticle thinner, and as there is some ulceration of the back, a water-bed is required. The mouth is less painful.

February 14th.—The cough is better, and the ulcerations on the back and trochanters have healed. The disease is slowly advancing, but he still takes food and sleeps fairly well.

March 2nd.—It seems clear that the formation of bullæ is not by any means the way in which the disease chiefly spreads. Small papules first appear in the healthy skin on the borders of the diseased areas. These enlarge and coalesce till they join the areas already affected. These papules are flat and darkish red in colour, but as they grow they become darker and finally almost black, much resembling the hide of an elephant.

March 14th.—The general condition is worse, the cough more troublesome, and the ulceration of the lips and mouth is slowly increasing, and causes the patient considerable pain and discomfort in eating. There is considerable enlargement of the inguinal glands, and fresh ulceration has appeared on the legs, in the treatment of which zinc oxide ointment has proved more beneficial.

March 28th.—The disease is slowly progressing, the wasting is very marked, and the appetite poor. (The patient has lost 18 lbs. between September and January. Since then he has not been weighed.)

July 12th.—The disease has gradually spread, and the general condition is much the same. He takes food fairly well and sleeps well. In the feet and hands are shooting pains. In the mouth there is less ulceration and inflammation than before. The surface of the hard and soft palate is hardened with numerous small white plaques. The skin on the back of the head up to the occiput, neck and beard, is roughened and pigmented, the whole area being raised and studded with whitish crusts. The chief surface of fresh involvement is the back, which is covered with what appears to be the primary condition of the eruption, small red raised papules, with a surrounding erythema, the papules being often umbilicated, sometimes with a small head containing purulent matter. These gradually increase in size, becoming speckled in appearance and, as they grow, becoming pigmented. The surface then becomes smoother and persists as the hardened raised purplish coloured area of affected skin. All the flexures are extensively involved, but there is no ulceration in any part. The skin of the palmar surface of the feet and hands has been much improved from the original condition, though they remain with a much hypertrophied, thickened and pitted surface. All over the back, which was originally free, the disease has spread extensively. There are now but a few scattered patches of normal-

looking skin on the body, the least involved part being the front of the chest. The skin on the arms seems to be undergoing a process of involution, being much smoother, though deeply pigmented. The general condition has not changed much lately. The patient is put into a bran and borax bath twice daily. For local application liquid paraffin & eucalyptus oil (3ij ad Oj) has proved most satisfactory.

July 25th.—Round some of the raised surfaces the edges have begun to crack, forming superficial serpiginous ulcerated rings. The whole surface remains dry and forms a scab which tends to fall off, leaving a healing surface underneath. The cheeks are slightly more involved than formerly.

August 26th.—The patient has been removed to the Casualty Ward on account of his very offensive odour. The disease is spreading over the forehead and face.

September 23rd.—The whole process seems to be undergoing involution. The affected skin has lost the tuberculated, nodular character, and is much smoother. The pigmentation is not increasing, and there is a tendency to become lighter. On the whole the condition tends to improve.

October 13th.—The condition has not tended to improve. He is much thinner, though he takes food well. He has shooting pains all over him occasionally. The pigmentation has advanced over the forehead and face, having a well-marked raised hard edge, but no vesicles have appeared for some months. On the legs, flexor and extensor aspects, numerous cracks have appeared, which have increased in size. The edge is sloping and resembles an edge of a healing ulcer. The base is smooth and bright red. Two of these large bare patches are present on the right great trochanter, and a large irregularly-shaped patch over the coccyx. Below the coccyx are numerous small cracks.

November 22nd.—The patient has been getting thinner and weaker. He takes his food less well, partly on account of anorexia and partly because of the painful condition of his mouth and throat. The pulse is not feeble, but of fair volume. The temperature varies between 98° and 100°. The cardiac sounds are clear, also those of the lungs clear, except for occasional rhonchi. In the abdomen no viscus is felt. The urine is acid—specific gravity 1015—and contains no albumen or sugar. There is no diarrhoea.

Skin.—In the left occipital region there is a large area over which the epithelium has worn off, leaving the lower layers of the skin bare, forming, as it were, the base of an ulcer, the edges of which are irregular and sloping, and gradually increasing in circumference. The forehead is affected over the upper half. The skin is not thickened, and with one's eyes shut it is impossible to tell which part is affected and which is not. The affected part is not so dark as it was, is not raised, and there is no edge to be felt. The front of the chest is the part least affected; upon it are, so to speak, islands of dark-brown skin; these are not raised, but, to the touch, feel thickened, the edge being sharply defined. The front of both the

shoulders is free from invasion. In the centre of the islands the skin is lighter, and more the colour of the non-affected portion. The axillæ are affected, and there the skin is thicker than elsewhere. There are numerous cracks, the edges of which are sloping and irregular, tending to extend in the long axis and also transversely; the base appears red and beefy, rough and non-purulent. There are many of these cracks all over both limbs, back and side, all tending to increase, and they have a red, raw, irregular base, with sloping edges. They occur on the flexor as well as the extensor surfaces, and on points where there is no tension or pressure. The back is in a very bad condition.

Report of post-mortem examination.—S. S—, aged 52, admitted November 5th, 1902, died December 6th, 1903. Post-mortem examination December 8th. Nature of disease, Pemphigus vegetans. External appearance, much wasted. The skin over the whole body, except the cheeks, the pectoral and deltoid regions, is of a dark brownish colour, the older portions of the pigmented skin looking almost as if they had been black-leaded. The skin is tightly stretched over the subjacent structures and appears greatly thinned. In the axillæ and on the groins and over a large area of the back, the skin had become superficially ulcerated, and these ulcerated areas are devoid of pigment. The inner and mucous surface of the upper and lower lips, and portions of the cheeks, are covered with sodden epithelium and food *débris*, showing a surface in no way characteristic. The tip of the tongue at the edges is covered with thick hardened white epithelium, and behind this again are several very evident papillæ covered in the same manner. The greater part of the anterior half of the dorsum of the tongue is apparently denuded of epithelium. Head.—Cranial bones, meninges, vessels, etc., all natural. Chest.—Few enlarged glands in the neck. Lungs very large and emphysematous. Heart.—10½ oz., mitral flaps and chordæ tendineæ thickened and shortened, other valves natural, left ventricle slightly hypertrophied. Aorta and vessels large, but healthy in greater part; below the origin of the celiac axis, a large adherent mass of ante-mortem clot. Abdomen.—Signs of wasting; otherwise natural.

Remarks on the Case.—The rarity and gravity of this case plainly render it a duty to publish an account of it. The diagnosis of it

was difficult, and I never saw one like it. The etiology of it remains completely obscure. No infective elements of any kind were detected in the earlier course of it. The elementary lesions were rarely of a bullous character, and chiefly papular, dusky red in colour, gradually enlarging, becoming coherent with others, and coalescing into larger patches. These next became pigmented of a slate-blue colour, and more and more raised and roughened. The adjacent uninvolved areas of skin became deeply pigmented of a brown colour. In course of time, the roughened elephant hide-like portions became flattened and smooth, still retaining their colour. With progressive trophic failure, cracks and ulcerations occurred in the lines of motion and on points of pressure. The general aspect of the patient at first suggested leprosy, but this view was soon discarded. In its progress and outcome it far exceeded in repulsiveness and humiliation the worst forms of leprosy I have ever met with in many parts of the world, or seen depicted. No methods of treatment were of any service, and these included arsenic, thyroid extract and most other drugs which are commonly found useful in chronic and cachectic states. I hope never to encounter such a case again.*

A CASE OF MYCOSIS FUNGOIDES.

By DAVID M. GREIG, C.M., F.R.C.S.ED.,

Surgeon, Dundee Royal Infirmary; Lecturer on Clinical Surgery, Dundee University College.

CASES of Mycosis fungoides are not so common as to make an apology necessary for adding this, a single case, to those already recorded, especially as it illustrates the marvellous effects that exposure to X-rays has on the disease.

The patient was a labourer, 40 years of age, and first came under my notice in July, 1899, when he was admitted to the "Peter Carmichael" Ward of the Dundee Royal Infirmary. He complained of an ulcer over the left side of his back of some four or five months' duration. He could not give details of his family history, but his

* I would direct attention to an excellent report of a somewhat similar case by Drs. Allan Jamieson and Welsh (*Brit. Journ. of Dermat.*, xiv, p. 287).

personal history was very good. He had had no previous illnesses, and denied all history of syphilis. He was married and had had six children, of whom one was killed accidentally at the age of ten years, one was stillborn, one died of whooping cough, and one died aged six years of rheumatism and heart disease. The others were well, though one was an imbecile. He could give little history of the disease for which he presented himself, as he had not noticed it till it had ulcerated, and the whole he attributed to irritation from his brace-buckle when at work. There was over the lower part of, and slightly below the left scapular region, a large ulcerated area some six inches square (Pl. I), formed by firm, raised, dusky red patches, which looked as if they had at one time been separated and had recently fused. These patches tended to be crescentic in outline in places, and the ulceration was irregular and with a sloughy base. There was a similar dusky red, well-defined, but small raised nodule to the right of the middle line of the back. The patient was a well-developed and well-nourished man.

Notwithstanding the absence of any history and in spite of his distinct statement to the contrary, the condition was ascribed to syphilis in its tertiary form, and he was put on *Liquor Hydrargyri Perchloridi* and *Iodide of Potassium*. Within a week he showed slight ptyalism. He remained in hospital at that time forty-one days, during which the treatment was carried on on the same lines. The rest in bed and the dressing with mercurial ointment caused some improvement in the condition of the sore, but the impression left on my mind was that this improvement was not as great as would have been expected had the diagnosis been correct. During nearly all the time, too, he complained of pains along his sixth to tenth left intercostal nerves. This pain varied in severity, and seemed to be relieved by *Phenacetin* or *Pulvis Ipecacuanhæ Compositus*.

Within a fortnight of his discharge from hospital the improvement in the ulcer had not only disappeared, but the ulcer was actually larger, and had again become sloughy. He was therefore readmitted in September, 1899, and the entire affected area on the left side was excised. The margins were deeply undercut, and a plastic operation was done in order to cover the large raw surface left by the operation. There was a good deal of tension on the stitches, and consequently considerable pain, which was relieved by occasional doses of morphia

or nepenthe. His antisyphilitic treatment was also recommenced. The tumour removed was examined by Professor Robert Muir, who reported that "there was much inflammatory infiltration, and in the deeper parts the arteries showed some endarteritis obliterans." This report tended to strengthen my belief that the case was one of tertiary syphilis. With the union of the skin-edges and the removal of the stitches the pain disappeared and his general health seemed to be improved. He complained occasionally of headache, which I attributed to the iodide, and at one time he also said he had noises in the left ear. The wound was almost healed when he went home after a residence of fifty days in hospital. The operation was followed by a considerable and prolonged relief of symptoms, but the disease gradually reasserted itself, though, as he apparently never examined his back or consulted his wife on the matter, he was unable to give any description as to how it had progressed.

About August, 1902, the skin again ulcerated and again began to be painful. Two months later he was readmitted to my ward on account of the increasing pain and some itchiness which he said he had never felt before. On examination there was found to be (fig. 2) a large ulcerated area about the left scapular region. It measured seven by four inches, and was raised one to one and a half inches above the general skin level. It did not correspond with the scapula, but involved the skin over the inner part of both spinous fossæ, the scapular spine, and the angle of the scapula. All this area was not ulcerated, but it was raised, firm to the touch, and brick red in colour, while about half was ulcerated with unhealing margins and a tendency to slough in parts. From the lower part of this growth projected the scar which marked the site of the former operation. This scar was soft, pliable, and healthy, was not involved in the neoplasm, and showed no appearance of anything like keloid.

The edge of the large mass was very well defined and the transition from involved to uninvolved skin was very distinct. This was also most marked in the other nodules which were found to exist on either side (Pl. II, fig. 1). No other area was ulcerated. There were red or pink patches of skin over the back on both sides, and, like the nodules, these tended to assume a crescentic outline in many places. These patches changed colour even while being looked at, and it was noted that exposure to the air increased the pain and discomfort felt by the

patient in the ulcerated area. As one would expect to find in parts supplied with blood-vessels whose walls were thickened by endarteritis obliterans, exposure to cold caused all the nodules to become less red, and, indeed, distinctly cyanotic.

For a month he was dressed with various soothing ointments, and allowed to lie in bed. This resulted in considerable cleaning up of the ulcerated surface and an amelioration of his pain and discomfort. He was next submitted to X-ray treatment, and Dr. H. E. Fraser, who carried out this part of the treatment, reported as follows:—"The treatment was begun in the electrical department on the 26th November, 1902. The largest area was treated first, exposed to the X-rays for four minutes, the coil being one of 10-inch spark length, and actuated by current from the street main (200 volts) passed through a Wehnelt electrolytic interrupter. On the following day a similar exposure was made. Thereafter the time was increased to fifteen minutes daily, and the other areas were in turn subjected to treatment. After the fourth or fifth exposure the discharge from the large area lessened, healthier granulations appeared on the surface, and the swelling diminished. The unbroken lesions diminished in size. In all nine exposures only were made, the beneficial effects of the treatment continuing to show itself up to the time the patient was obliged to cease treatment on December 8th on account of pain, but in any case the treatment would have been stopped then as all the masses had disappeared" (Pl. II, fig. 2). I noted at this time, too, that the large fungating patch was almost healed and quite flush with the skin, and that all the other patches had disappeared, but that the skin where they had been remained dark and red in colour, and this redness had a well-defined margin. All infiltration of the skin had gone.

On December 9th he was still complaining of pain round the sides of his chest so severe as to prevent him from sleeping at night. This was relieved by nepenthe. On December 14th he complained much of headache, and on the 16th of sore throat. There was no rise of temperature. He called attention to a swelling in the left supra-clavicular region. It was subcutaneous apparently, firm, irregular, circumscribed, and movable. This never came to anything, varied in size at times, and later disappeared. It reminded one of the conditions of so-called "supra-clavicular lipoma" sometimes seen in cretins. He

developed some anæmia, which I am inclined to ascribe to the hæmolytic action which the X-rays sometimes appear to exert.

The sore throat lasted a few days and then he began to complain of pain in his chest, which prevented his lying on either side and interfered with his sleep. It came on with exacerbations at irregular times, and he was ordered phenacetin at night or when the pain was specially severe. Till the end of December the effect of the X-rays had evidently continued, for it was noted that the ulcer on the back was still decreasing in size. Though the pain continued it was not so severe, the phenacetin apparently exercising a beneficial effect, but in addition he began to complain of stiffness. On January 3rd, 1903, he complained of pain "all over," but particularly in the knee-joints. A small nodule had reappeared on the right back and was excised for examination, and two of the sections were submitted to my friend Dr. J. M. H. MacLeod, of London, whose report and remarks are appended below. The wound made by this little operation healed easily, and there was no local return of the disease. The pains in his legs, accompanied with increasing stiffness of his body and limbs, continued with varying intensity for about a week, sometimes being replaced by pains in the knees and hips, and then the back became the chief seat of pain. In a day or two the pain became localised in the back of the neck and head. This was replaced by pains "all over," and then these by severe abdominal pain. The temperature, too, began to have a diurnal variation which it never had before, and this continued with slight increase until his discharge from hospital shortly before his death. On January 15th I had the opportunity of seeing him during one of his severe attacks of pain. The pain was on that occasion localised to the back of the lumbar region, and was very severe. He was flushed and weeping in the agony of his suffering, moving himself about the bed in a painful way as well as his increasing general stiffness would let him; his pulse was quick and his abdominal muscles tense. Speedy relief was obtained by a hypodermic injection of morphia. This severe attack was succeeded by four or five days' relief, and then severe pain set in again, this time in the legs. He perspired freely during these attacks of severe pain, and was now obviously failing. His appetite was poor. He had difficulty in turning himself or raising himself in bed. Phenacetin, salicin, separately or in combination, salicylate of bismuth, trional,

sulphonal, and bromide of potassium were in turn exhibited, with only doubtful temporary benefit, and morphia was used sparingly when it was found necessary. Towards the end of January he began to have left temporal pain, and on one of the occasions when he had an exacerbation I saw him again. He was much pained, apparently rather stupefied by the pain, sweating profusely, and with a pulse of 126 and a temperature of 97.2° . Generally a day or two of relief followed a severe attack of pain. There seemed to be no relation between the severity of the attack and the height of the temperature, which never exceeded 101° at any time in the course of the illness, and was always normal or subnormal in the morning. During the remainder of his stay in hospital the severe attacks of pain occurred with increasing frequency, until twenty-four hours seldom passed without an attack. As a rule, too, the head continued the chief seat of the pain, but the limbs, neck, and back were specifically complained of on occasions. He became very discontented, querulous, and fretful and full of complaints that nothing was being done for him. He took his food with increasing disinclination, and it was obvious that his weakness was rapidly increasing and that he was becoming more and more exhausted. When he left the hospital on February 21st he was very weak and emaciated. His complexion was grey, and he looked very ill. He was exceedingly stiff and could only be moved with difficulty. The ulcer in the back had ceased healing but measured little more than one inch square. Twenty-six days later he died at home.

There are several points in the case above detailed which I think are worthy of accentuation :

1. The duration of the premycotic stage cannot be fixed. That a premycotic stage existed is a permissible deduction from the fact that a distinct erythema was known to precede the appearance of all the other nodules except the first.

2. The absence of any itching or other subjective symptom before the ulceration appeared.

3. The good effect that followed the excision of the ulcerated area in 1899, and the satisfactory way in which the wound made in excision of a small nodule in January, 1903, healed. Evidently there is no tendency for the neoplasms to reappear in cicatricial tissue at the site of operative interference. It seems that in the course of

the disease the new growth may reappear where it was excised, but not specially in the scar, as an imperfectly removed sarcoma or carcinoma would. Might one deduce from this that early excision of nodules would obviate painful ulceration and septic absorption, which is recorded in some cases as the cause of death?

4. The temporary nature of the improvement under X-ray treatment. Several cases have been recorded of "cure" by this treatment, and it would be interesting to know the after-history of these cases. I know of one such case where the disease has certainly returned after a lapse of some months.

5. In my case the mode of death is not at all compatible with the theory of septicæmia. While the ulcerated area was large, there was no sign of septic absorption either in the temperature or otherwise, and for three months before his death the ulcerated area was so small and so carefully attended to that any infection from it then could not be possible. I feel sure that the extraordinary severity of the pains, the frequency with which the pains of maximum intensity varied in position, and the gradual onset of increasing muscular rigidity, point to some involvement of the cerebro-spinal nervous system; as, for example, some special form of meningitis, gradually increasing and causing death by emaciation and increasing debility.

REPORT ON THE HISTO-PATHOLOGY OF THE CASE.

By J. M. H. MACLEOD.

The sections which Mr. Greig kindly gave me the opportunity of examining were cut from a small nodule excised from the right side of the back. They were stained with hæmatoxylin and eosin, and presented the following appearances:

The *epidermis* throughout the sections was thinned, and the papillary body so much flattened that the line of junction between the two layers, instead of being wavy, was almost straight. This thinning appeared to result from the tension and constant pressure exerted by a tumour mass which was present in the corium. The basal layer was blurred and irregular, and its cells were separated by oedema, a few leucocytes being present between them. The Malpighian layer consisted of four or five rows of prickles-cells, which

were œdematous and presented nuclei lying in spaces in the centre of the cells. The interepithelial lymphatic spaces were dilated, and the interepithelial fibrils stretched. The granular layer was present but defective, and the horn-cells above it were imperfectly cornified and tended to form scales. In short, the epidermis was œdematous, scaly on the surface, and attenuated from pressure, but presented no characteristic alterations.

The *corium*, like the epidermis, showed marked evidences of œdema, the fibrous elements being separated and the blood-vessels dilated. The most noticeable abnormality, however, was the presence of a dense cellular infiltration extending from the sub-papillary layer down to the subcutaneous tissue. This formed the tumour mass. It did not reach up as far as the epidermis, being separated from it by a layer consisting of an œdematous stroma occupying the site of the papillary body. The collagen bundles in the tumour mass were split up and attenuated by the exuded fluid into a network of thin irregular fibrils. Here and there the bundles had broken up into coarse masses or formed a fine *débris*.

The section was not stained so as to demonstrate the state of the elastin or to show the presence of any special degenerative products of the collagen or elastin. The cellular infiltration was made up chiefly of connective-tissue cells, but mixed up with these was a small percentage of leucocytes, especially in the neighbourhood of the blood-vessels. The following varieties of cells were noted:—Numerous round or oval faintly stained connective-tissue nuclei, a certain number of plasma cells, numerous small darkly stained lymphocytes, and a few multinucleated cells. Many of the cells were irregular in outline, some being crenated at the margins, and a few had broken up into a *débris*. Where the destructive process had reached its height irregular spaces were present in the tissue.

The character of the cellular infiltration and the state of the fibrous stroma associated with the process of destruction suggested that the lesion was some form of breaking-down granuloma, and—by a process of exclusion, as it differed from that usually found in tuberculosis or syphilis—most probably Mycosis fungoides in the tumour stage.

PLATE 1.

TO ILLUSTRATE MR. GREIG'S CASE OF MYCOSIS FUNGOIDES.

PLATE II.

FIG. 1.

FIG. 2.

TO ILLUSTRATE MR GREIG'S CASE OF MYCOSIS FUNGOIDES.

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A CASE OF ANTIMONIAL AND LEAD POISONING RESULTING FROM THE USE OF THE LINOTYPE.

BY LESLIE ROBERTS, M.D.,

Hon. Dermatologist to the Liverpool Royal Infirmary.

IN the days of the old printing machines instances of metallic poisoning were not uncommon, but when the modern linotype was introduced it was supposed that the dangers of lead poisoning would be abolished. That the linotype has greatly reduced the risk of plumbism cannot be doubted, but the following case proves that metallic poisoning may occur in printing establishments provided with the most modern appliances.

John P—, aged 29, has followed the craft of a compositor for twelve years. About one year after the introduction of the linotype into the printing establishment his health began to suffer. His symptoms were vague. He complained of pain in his limbs and of tenderness of the fingers. He became constipated, and perspired excessively. He continued to follow his work for three and a half years after the onset of the earliest symptoms. During this period he consulted different medical men, and was treated sometimes for “nerves” and sometimes for something else. He was never suspected to be suffering from metallic poisoning. Absence from work was followed by an abatement of the symptoms, but on resuming his employment he quickly fell into the former morbid state of health. As time passed he grew worse; the tenderness of the palms and fingers became so marked that it began to affect his working powers. He could no longer keep pace with his fellow workmen in the setting of the type. It was this symptom of tenderness that eventually compelled him to resign his post. It was about this time that I saw him at the Royal Infirmary. He drew my attention to his hands. They were damp with excessive perspiration. A faint pink colour was suffused over the palms and fingers. There was no discoloration of the horny epidermis and no break in its continuity. Over the thenar and hypothenar eminences minute, smooth, pale, lichenoid papules were disseminated. They were not coarsely evident, and had to be care-

fully looked for. But it was quite sufficient, as I pointed out to the students, to diagnose poisoning by a metal belonging to the arsenical group. I thought at the time that he was suffering from arsenical poisoning; but on communicating with the makers of the linotype metal they guaranteed that it consisted of tin, antimony, and lead, and that it was free from arsenic. This confirmed my opinion, since antimony is physiologically identical with arsenic. If any difference exists, it is merely one of degree.

The physical facts of the case are few in number, and I may repeat them:

1. Hyperidrosis of the palms, soles, and head.
2. Smooth flat papules on the hands.
3. Tenderness on pressure of the palms and soles.
4. Trembling of the muscles of the upper extremities.
5. Chronic constipation.
6. The absence of colic, vomiting, or other evidence of intestinal disturbance.
7. A twenty-four hours' collection of urine measured 20 ounces. Its specific gravity was 1012, and it had an acid reaction. It yielded no trace of albumen, sugar, or antimony. There was distinct evidence of lead.

From the fact that the microscopical changes of the skin were identical with those produced by a metal of the nitrogen or arsenical group and not those produced by lead, we may justly conclude that the man was suffering from double metallic poisoning, namely, from antimony and lead. The antimony seems to have modified the symptoms of plumbism, for it is a striking fact that the patient had never suffered from colic during the four years that he was inhaling the fumes of lead. The symptoms which I think were attributable to the lead were the tremors and the constipation.

HISTO-PATHOLOGY.

1. The first noteworthy fact was the entire absence of inflammatory symptoms, or perhaps I should say rather of leucocytosis. The superficial vessels were congested.

2. The poison had spent its force entirely on the epithelium, and, as is always the case with metals of this group, in an irregular and apparently capricious manner.

3. There was distinct evidence of epithelial stimulation. The stratum lucidum was thickened to a remarkable extent. The rete cells were actively proliferating, and the prickle cell stratum increased in size. The epithelial ridges were enlarged laterally.

4. The cavernous dilatation of the intra-epithelial portion of the sweat-ducts formed a striking figure in the picture. The ducts were dilated throughout their entire course.

The lessons to be learnt from the case are :

1. That the skin is often a mirror in which many of the morbid constitutional states of the body are reflected.

2. The importance of minute cutaneous symptoms. The clue to diagnosis is often afforded by the minutest of signs. Gross eruptions not infrequently conceal the finer prints of disease, which, if properly observed and rightly interpreted, disclose the true sequence of the events which collectively we call disease.

3. That the action of antimony on the epithelium is identical with that of arsenic, and that this consists essentially in stimulating epithelial protoplasm. At first the stimulation is well borne ; the increased action coincides with the physiological habits of the cell, and varies only in degree from what is usual. Later the stimulation is badly borne ; it interrupts the processes of assimilation, the molecular structure crumbles to pieces, and the cell ceases to exist.

4. There is also a lesson for the printers who use the linotype machine. It is more than advisable, it is essential, that air-shafts and ventilators be fixed immediately above the trough containing the molten linotype metal for the purpose of carrying off the fumes of metal.

I am glad to see that the firm in whose establishment the present case of poisoning occurred have recently introduced these ventilating shafts with the object of preventing a recurrence of metallic poisoning among their workpeople.

A NOTE ON THE TREATMENT OF MULTIPLE WARTS BY THE INTERNAL USE OF MAGNESIUM SALTS.

By ARTHUR HALL, M.A., M.B., F.R.C.P.,

Physician, Sheffield Royal Hospital; Professor of Pathology, University College, Sheffield.

ORIGINALLY suggested by Colrat, of Lyons, the treatment of multiple (? infectious) warts by repeated doses of magnesium sulphate internally is quoted in most text-books of Dermatology. It is, however, with a few exceptions, referred to as of doubtful value, and in a somewhat sceptical tone. The reference is not infrequently followed by a statement as to the "capricious nature" of these warts and their sudden disappearance without any treatment at all, hence the danger of attributing success to any internal remedies. Radcliffe Crocker speaks of occasional successes with the treatment.

The following case recently came under my notice, and the result was so immediate and striking that I think it is worth recording :

Mr. H—, aged 27, was sent to me by Dr. Worthington, of Chesterfield, suffering from very extensive simple warts of the scalp and forehead.

They had first appeared two years previously, and had steadily increased in numbers. During the last few weeks they had extended from the scalp to the forehead.

The whole of the top of the head was thickly covered with warts, some simply flat or rounded, others larger and markedly digitate, the processes clinging to the hairs and producing a great likeness to some form of living parasite. Over the affected part the hair was scanty, and there was marked sweating. Besides these there were two areas of flat warts over the forehead, situated about each frontal eminence. There were none elsewhere on the body.

Dr. Worthington had tried the local application of Salicylic acid and Ether, but so far it had produced little or no effect.

Seeing the great number of warts, and the necessarily very tedious process of destroying each separately, I suggested the internal administration of magnesium sulphate. I must admit that I suggested it with some scepticism, and that Dr. Worthington, whilst loyally accepting the suggestion and immediately carrying it out, looked at

it in the same light, for he wrote to say that he had put the patient on Mist. Alba \mathfrak{z} i t. d. s., and had sent for some salicylic plasters from Germany. He also asked whether I thought a general anæsthetic would be permissible to remove the bulk of the warts at one sitting!

The sequel, however, proved these measures unnecessary. The patient began to take Mistura Alba (Magnesii. Sulphatis \mathfrak{z} i, Magnes, Carb. gr. xv. Sp. Chlorof. et Aq. Menth. Pip.) on March 26th. He took it thrice daily. On March 30th he called at Dr. Worthington's for the second bottle, and the warts had already "shrunk considerably in size."

On the 30th he also received some 10 per cent. salicylic soap plaster for the forehead. He found the Mist. Alba somewhat drastic, so took it less frequently, not requiring another bottle till April 6th.

On April 13th, 1904, Dr. Worthington writes, "You will be interested and possibly amused to hear that Mr. H— has just been to see me, without a single wart left. Such is the effect of Mist. Alba three times a day!"

(The Salicylic plaster was only applied to the forehead.)

In considering this history I decline to accept as an explanation that depressing jack-in-the-box "post hoc," who is always springing up to damp our therapeutic enthusiasm. The patient has extensive warts for two years, and a line of treatment previously found on repeated occasions to be successful is advised; within a week the warts are shrinking, within about a fortnight they are all gone.

Such a result might be due to the mental impression or the moral effect of a consultation. But I do not think anyone will admit that simple warts are of "nervous" origin. There is, however, another explanation of the action of magnesium sulphate which seems to fit in with many facts connected with warts.

It is generally admitted that these multiple warts of the hands, or face, or head, in children or young adults are infectious, and that if the patient pulls the top off a wart and it bleeds, they are liable to spread. (This is, at any rate, a popular belief.) Unna writes, "Their frequent rapid spread amongst servants and children, and their equally sudden disappearance make their infectious nature very probable." *

* *Histopathology of the Skin*, p. 786.

This sudden disappearance of the warts under various conditions, sometimes on the administration of drugs so diverse as magnesium sulphate (Colrat), Nitro-hydrochloric acid (Crocker), liquor arsenicalis (Müller, Sympson, and others), Thyroid extract, tuberculin and re-vaccination (quoted by Crocker), whilst at other times they are said to disappear spontaneously, seems to me to point very strongly not only to the disease being due to a micro-organism, but also to the fact that this organism is a comparatively poor parasite; by which I mean that a very slight alteration of the soil in various ways is sufficient to prevent its further growth. Thus, an increase of Magnesium salts in the tissue juices, a small quantity of arsenic, thyro-iodine, etc., is sufficient to hinder the further growth of the organism, with consequent shrinking of its new formation and disappearance of the disease. Such a view is consistent with what we observe in other parasitic diseases. *Actinomyces* cannot live in a soil permeated with iodide of potassium. The small-spored ringworm cannot flourish on an adult scalp, *Impetigo contagiosa* flourishes in an anæmic child, furuncles favour a diabetic's tissues.

That the micro-organism of warts when it is definitely isolated will be found to be fastidious as to the media it grows upon, seems to be further supported by the fact that hitherto it has not been isolated. Occasional accidental infections have been noted, but more often definite attempts to inoculate another individual with warts have failed entirely. Recently my colleague, Dr. George Wilkinson, made some careful experiments upon his own arm in this way, slightly scraping the epidermis and then applying a freshly excised wart from a patient's arm, and keeping it thus applied. These, however, proved entirely negative.

That before long the organism will be settled definitely I have no doubt; meanwhile I think the treatment by internal remedies is worth further consideration, and is as scientific as a purely local destruction.

For permission to publish this case and for the notes I am deeply indebted to Dr. Worthington.

SABOURAUD'S TREATMENT OF RINGWORM BY X-RAYS
AT THE SAINT-LOUIS HOSPITAL, PARIS.

By J. L. BUNCH, M.D.

SOME years ago the problem of the cure of ringworm was as follows: All the antiseptics *in vitro* kill all the cryptogamic parasites of the hair, but no antiseptic penetrates the hair-follicle to a greater depth than one millimetre. The hair of a child, however, is implanted in the skin up to a depth of four millimetres, and the parasite of ringworm involves its root down to the terminal enlargement of the hair-bulb. The parasite of favus is similar in that it also is inaccessible to antiseptics, but the disease can be cured by five or six epilations repeated at intervals of a month. This method, practicable in favus because the diseased hair remains solid, is impracticable in ringworm because the affected hair becomes fragile and breaks. It cannot be pulled out entire, but breaks at its most diseased portion, and the fungus spores remain behind with the root. The hair continues to grow, but the parasite continues to develop in proportion to the growth of the hair.

The root of the hair, then, being inaccessible to antiseptics applied externally, the solution of the problem could only be found by discovering an agent which is capable of inhibiting for a time the function of the papilla from which the hair grows. Such an agent is radiotherapy. For some years it has been well known that the application of X-rays causes the hair to fall out, and in 1896, one year after Röntgen's discovery, Freund attempted the treatment of ringworm and various forms of dermatosis by radiotherapy. Since then numerous attempts have been made to establish a definite method of treatment, but the absence of satisfactory methods of measuring the radiations employed and the resulting accidents have made many experimenters timorous. Moreover, the large number of exposures necessary (as many as forty have been quoted for a single case) has made the treatment of ringworm by radiotherapy of no practical value.

Sabouraud has, however, owing to the large number of cases of ringworm under his care, been able to work out and formulate a method of treatment which, from personal observation, I can assert to

be simple and extremely effective. The number of successful cases which I have seen is not only very considerable, but the relative proportion of successful to only partly successful or unsuccessful cases is certainly high. The method is painless, the actual time necessary for the treatment is short, the diseased hairs fall out at a definite interval after application of the X-rays, and are replaced after a certain time by a growth of healthy hair. Such excellent results can, however, only be obtained by careful dosage of the Röntgen rays, and by accurate measurement of the amount of the rays allowed to act upon the surface of the scalp.

The apparatus necessary is an ordinary static machine with ten plates of 0.55 ctm. diameter driven by a $\frac{3}{4}$ -horse-power dynamo, with a Bécclère "spintermètre" interposed between it and the Crookes-Villars tube. The "spintermètre" is of great practical use. Thus, if when the two knobs are two centimetres apart the Crookes-Villars tube is illuminated it shows that the resistance of the tube is less than that of the two centimetres of air separating the knobs of the "spintermètre," for, if the resistance of the tube increased, a spark would establish a short circuit between the two knobs and the tube would show no light. The interposition of the "spintermètre," therefore, tells one at every moment that the resistance of the tube does not exceed that which is desired, and which has been proved necessary to bring about the requisite result.

As regards the tube, an ingenious modification has been made by Villars which enables it to be rendered "soft" at will. To a lateral branch of the tube he attaches the open end of a tube of platinum which is closed at the other extremity. When the resistance of the tube increases this tube of platinum is warmed by a Bunsen burner, it gets red, becomes porous, and allows a little of the hydrogen of the flame to enter the tube.

But one could thus render the tube much too soft, without the "spintermètre" giving any warning. This would be very serious, since a soft tube means rays of small penetrating power but injurious to the skin. To avoid this we make use of the radio-chromometer of Benoist, the illumination of the aluminium sectors of which determines the relative hardness or softness of the tube. In practice it is found that the resistance of the tube should correspond to the fourth division of the radio-chromometer.

It is also equally necessary to be able to render the tube harder at will, and this is done by interposing a lateral derivation of the current, producing a continuous spark—a resistance. This causes the tube to harden, and the change is registered by the radio-chromometer.

Thus, by means of this accessory apparatus, we know at any moment what is the degree of penetration of the X-rays produced by the tube, and are warned as soon as this changes, and can immediately make the necessary alteration.

Only one measurement is still wanting. It is that of the *quantity* of X-rays produced by the machine in a given time. To measure this, the pastilles of Holz knecht are used. These are composed of a mixture of alkaline salts which the X-rays cause slowly to change in colour. One is placed in the path of the rays emitted by the tube, at a distance equal to that of the patient's skin. From time to time the change in colour is compared to the colours marked on a scale of 12 degrees, each of the degrees of the scale being termed by Holz knecht *one unity H*. Experience shows that the tint corresponding to 5 unities H on the scale must not be passed, at least at one sitting. It is hoped that a cheaper substitute for these pastilles will be able to be employed in the future.

From the preceding the following rule is deduced. To cure a patch of ringworm, it must be exposed at a distance of 15 centimetres from the centre of the Crookes-Villars tube, the tube having a resistance corresponding to the fourth division of the radio-chromometer of Benoist, until the electric power has furnished a quantity of X-rays corresponding to $4\frac{1}{2}$ or 5 unities H of Holz knecht's scale.

By keeping to the above rule we can produce exactly what we require, that is to say, the depilation pure and simple of the portion of scalp desired, without complication of burns either trivial or grave, in a word, without accidents. The operator, however, and the healthy portions of the patient's scalp must be protected from the rays, and this is done by enclosing the tube in a sheath which is impermeable to the rays. This is perforated to allow of three apertures, into one of which a series of metal tubes and diaphragms can be inserted corresponding to the size of the ringworm patch on the scalp, cutting off the useless rays.

A scalp treated as above shows nothing immediately. Towards the seventh day a scarcely perceptible erythema appears on the area

exposed to the rays, which disappears after four days and is replaced by a pigmentation so feeble that it is necessary to search for it. From the fifteenth day onwards the hairs fall out over all the area treated without any effort of traction. In a few days the depilation is complete. The diseased hairs are eliminated like healthy hairs by reason of the atrophy of their papilla. A new hair grows from a new papilla at the end of the hair-follicle, but even when the growth of the new hair follows closely the expulsion of the dead hair, the two remain separated, as a rule, by a complete thickness of epidermis interposed. Thus it is possible that a parasite localised to the horny epithelium can be eliminated outside the skin by a physiological process, without the new hair which is growing below the dead hair being contaminated.

The growth of the new hairs is slow. This is one of the inconveniences of the method, but also one of the reasons of its success.

The last *débris* of the diseased hair has long been extruded when the new hairs appear. The new growth as a rule becomes visible in the course of the seventh week after depilation, in the course of the tenth week after operation. Its date is a little variable, but it never fails, and hardly ever is later than twelve weeks after exposure to the X-rays. It is always slow; in normal cases it is almost complete two months after its commencement.

Successful though the vast majority of cases are, there is always the possibility that the restlessness of the child, or the number of small patches which have to be treated, and so the number of sittings necessary, or some unexpected variation in the electric current or other cause, may give rise to a bad result. The usual causes of non-success are as follows:

(1) Insufficient depilation at one or two points, leaving several diseased hairs which do not fall out.

(2) Forgetfulness on the part of the operator leaving an island of diseased hairs which are difficult to see, and which show up when the rest of the disease is cured elsewhere.

(3) Reinoculation during the course of treatment.

But in spite of these possibilities the results are good. Before radiotherapeutic treatment, the average time of treatment of ringworm at the Saint-Louis Hospital was eighteen months. Sabouraud declares that it was longer everywhere else, except when the disease

was considered cured before it really was, which, he states, was an ordinary occurrence, almost the rule. Whatever the truth of these statements, comparison of the Saint-Louis results show that the time of treatment has been reduced from eighteen months to three months and a half.

CURRENT LITERATURE.

LEUCONYCHIA STRIATA ARSENICALIS "TRANSVERSUS."

CHARLES J. ALDRICH (Cleveland, Ohio). (*American Journal of the Medical Sciences*, p. 702, April, 1904.)

Dr. ALDRICH gives an account of patients coming under his observation who showed white transverse lines stretching across the nails. The first case noted was of interest inasmuch as the woman suffered from severe arsenical neuritis. He was able to estimate from the extent of the growth of the nail that the white lines corresponded to the time when, with suicidal intent, she had taken a teaspoonful of "Rough on Rats," which is well known to contain a large quantity of arsenic. "The white streaks were about one-sixteenth of an inch in width, quite regular, with fairly sharp margins, and occupying an identical position on each nail. They were slightly larger on some nails than upon others, and a little whiter in the centre than near the margins; they extended from side to side, forming a concentric band, with the convexity directed to the free margins of the nail, and presented a curve identical with the lunule. The markings were less plainly seen upon the toe-nails. Her body was covered with branny, exfoliating dermal scales; much of the hair had fallen, and the palms and soles showed some keratosis."

Having observed this case and suspecting the relationship of the white nail-lines to the arsenical poisoning Dr. Aldrich's attention had been attracted to the subject and he had obtained corroborative evidence in other cases, one of them also in a case of poisoning by "Rough on Rats" with suicidal intent.

In his investigations Dr. Aldrich had obtained the opinion of Dr. Ernest Reynolds, Dr. Leslie Roberts, and Dr. Nathan Raw, in view of their experience of arsenical poisoning. Dr. Aldrich recognises the fact that white transverse lines may occur under other circumstances than in arsenical poisoning. He says:

"When I began a search of the literature for observations upon the nails it was with some surprise that I found that these white lines had been observed, carefully described, and figured by several authors, but none, excepting Reynolds, ascribed them to arsenic. One recorded case seems to show that they may appear as a congenital anomaly; other observations that they may present, as it were, an unguinal record of a severe illness." He reminds his readers that Dr. Langdon Down in 1870 drew attention to the fact.

In view of recorded cases Aldrich concludes: "If in the presence of such nail changes as here described and illustrated we can exclude congenital anomalies,

traumatism, severe illness, especially the acute specific fevers, particularly typhoid, relapsing, and typhus, we will be warranted in suspecting arsenical poisoning. And if other corroborating evidences, such as violent unaccountable vomiting, abdominal pain, cramps in the legs and arms, and neuritis can be obtained, I believe we can positively assert that poisoning by arsenic has taken place. And allowing for the rapid growth of the nail following arsenical poisoning, and giving seven months for complete nail-growth, from the position of the white band, we can quite accurately estimate the time of the poisoning."

J. G.

A CONTRIBUTION TO THE STUDY OF PEMPHIGUS VEGETANS OF NEUMANN. STANZIALE. (*Annales de Derm. et de Syph.*, January, 1904, p. 15.)

THIS disease, described for the first time as a clinical entity by Neumann in 1876, still remains rare; about fifty cases in all have been recorded. Its etiology remains obscure; of later years efforts have been made to find a bacteriological connection for it. Thus Marianelli, in 1889, found in the bullæ the *Staphylococcus aureus*, to which he ascribed, however, no pathological importance, since inoculations into animals from the blood of the patient produced negative results. De Michele, in 1891, cultivated from the spleen of a patient a coccus which was not pathogenic to animals; this organism was also found in sections of the spleen, the kidneys, and the skin. Herxheimer, in 1896, failed to find any bacterial cause; and Gastou, in 1900, identified a bacillus and a coccus in the bullæ, but found nothing in sections. Köbner, in 1894, also obtained negative cultures. Waelsch, in 1899, found in the blood and in the bullæ a "pseudo-diphtheritic bacillus" which showed characters warranting its inclusion in the pseudo-diphtheritic group of Hoffmann-Wellenhof. In the following year Waelsch found the same organism in another case; injections in both of these cases proved toxic to animals.

Stanziale reports a fresh case in a widow aged 58, the mother of a large family of apparently healthy children. There was no antecedent history of venereal disease. In 1902 she began to have sensations of burning during deglutition, accompanied by exaggerated salivation to such a degree that she dribbled in her sleep. Six months later she began to have "burnings" in the inframammary regions, followed by the same sensations in the genitals, axillæ, and umbilicus. At this stage she came under observation, and it is noted that her lips were swollen, fissured, excoriated, and covered with crusts, the gums swollen; the mucous membrane of the mouth and tongue excoriated and eroded, with a single bulla on the cheek. In the right axilla were four vegetations, the largest 4 by 2 centimetres across and about 6 millimetres high, secreting a sero-purulent liquid with a very offensive smell. These vegetations were surrounded by macerated skin. In the near vicinity to these, on the chest and arm, were several small bullæ. In the left axilla there were no vegetations, but the skin was excoriated, and bullæ were seen in the neighbourhood. Beneath the breasts, which were large and pendulous, there were numerous vegetations like those in the right axilla. About the navel and in the groin there were several condyloma-like growths, having near them isolated bullæ. The nails were unaffected. The temperature was normal.

The patient had constant sensations of burning in the mouth. Her mental faculties were intact. The urine was 1014; no albumen, mucus, pus, sugar, or blood; the urea was 11.73 per mil., the uric acid .41 per mil. She was treated with boric lotions locally, and internal administration of methyl-arsenate of soda.

Numerous fresh bullæ appeared from time to time, from which cultures were obtained. The vegetations extended in area at first, but latterly were apparently brought under control, becoming flat and leaving much pigmentation. Deglutition became more and more painful; epistaxis was noted on one occasion. Salivation was increasingly profuse, and diarrhœa with blood was noted on July 3rd, a month after admission. During all this time bullæ continued to appear. On July 6th. a typhoid condition was noted. She was better again on the 9th, but had a severe relapse ten days later; and on the 29th the temperature, which had been 100° for a long time, rose to 101.5°, and she died on the 31st. No autopsy was obtained.

Bacterial investigation was made of the contents of the bullæ and of the vegetation and of the blood. The skin was sterilised over the bullæ before puncture. The contents of the bullæ were inoculated on tubes, and also examined in the fresh state and in stained films. The media employed were very varied—bouillon, glycerine-agar, calf's blood serum, rabbit's blood serum, dog's blood serum, all being used. In the fresh specimens minute motile organisms, at first taken for diplococci, but later accepted as bacilli, were noted. The same organisms were found in the stained films.

The first cultures were made from a turbid vesicle and blood-free medium. A staphylococcus was thus obtained not pathogenic to animals. In a second series of examination, also in blood-free media, a bacillus very like the Klebs-Löffler bacillus was grown, colonies forming within twenty-four hours on agar. In the later series a perfectly clear vesicle was taken, and from this source minute bacilli (to be described immediately) were uniformly grown. In the examination of the vegetations, made with all possible aseptic precautions, a nearly constant bacterial flora was obtained, comprising *Staphylococcus albus* and *aureus*, streptococcus, and a pseudo-diphtheritic bacillus identical with the organism found in the turbid vesicle; the minute bacillus obtained from the clear vesicle was not found in the vegetations. The pseudo-diphtheritic bacillus proved non-pathogenic to animals.

Three examinations of the blood were made. The first was obtained from the hyperæmic zone surrounding the vegetations, and within twenty-four hours a pure culture of the pseudo-diphtheritic bacillus was obtained.

A second observation from blood drawn from a similar part gave again the same bacillus.

In the third attempt blood was drawn directly from the median basilic vein by a cannula inserted in it and inoculated on numerous media. At the end of three days, at 37°, the tubes containing rabbit's blood agar showed a growth, which proved to be a pure culture of the minute bacillus found in the clear vesicle, as described above. The other media remained sterile. Direct examination of the blood which served for inoculation did not give any positive results after examination of numerous films. Thus two types of organism were repeatedly isolated. The one found in the clear vesicle and in the circulating blood was a bacillus

0.4 to 0.8 μ long, and .2 to .4 μ broad. Some of the bacilli had slightly clubbed extremities; no spores were observed, but involution-forms were abundant within six days. They were motile, but motility ceased rapidly within fifteen minutes at the ordinary temperatures. It was a facultative anaërobe, staining with most aniline dyes, and retaining Gram's stain unless treated for a prolonged period with absolute alcohol. It was not pathogenic to laboratory animals.

Cultural tests in the case of both these organisms are described in great detail.

Examination of the blood showed a diminution of the red discs (average 3,800,000), and 28 per cent. eosinophiles; hæmoglobin, 73 per cent. Histological investigation of the vegetations showed great thickening, with numerous miliary abscesses, in the rete, and numerous leucocytes also in the corium—a chronic inflammatory process, in short, with tendency to suppuration. No bacteria were found in stained sections.

The paper is well illustrated by six coloured lithographs and a half-tone micro-photograph.

E. GRAHAM LITTLE.

A CASE OF UNIVERSAL INFLAMMATORY SWELLING OF THE SKIN. By Dr. HANS KOEBBER. (*Münch. med. Wochenschr.*, April 26th, 1904, p. 749.)

THE patient, a collier aged 47, developed at the beginning of January, 1903, a universal erythema. The whole skin was reddened without any noticeable swelling or weeping. At the beginning of February he noticed a swelling of the feet and ankles, which spread to the legs and thighs, so that at length he was unable to walk. In March the swelling had extended over the abdomen and chest to the arms and hands and on to the face. The rapid increase of the oedema was followed by difficulty of breathing. There was complaint of great thirst, while the appetite remained good. He had been a heavy beer and spirit drinker and had not had syphilis. He entered the hospital at Augsburg on April 3rd. His weight then was 210 pounds (Ger.), whereas before his illness it was 150. The thyroid seemed normal. The skin of the trunk and extremities was very oedematous and of a bronze or dirty brown colour. By reason of the tension and colour it resembled leather. Pitting resulted from the employment of considerable force. Everywhere the skin was exfoliating in fine grey white scales. The fingers were stiff. On the inner aspect of the leg and thigh there were, here and there, bullæ with yellowish serous contents leaving weeping surfaces. The skin of the face was not so much swollen. The scalp hairs were scanty and dry, and easily pulled out in clusters. The mucous membrane of the mouth was not oedematous, but on the left buccal mucous surface there were some brownish yellow stains such as are met with in Addison's disease. No disturbance of sensibility could be detected.

The examination of the internal organs was rendered difficult owing to the physical condition. The heart seemed to be normal; its action was regular, strong, and a little quickened. The temperature ranged from 37.5° to 38.3° C. The urine was brownish yellow, concentrated, and contained much sediment. The daily amount passed was 700—750 c.cm., the specific gravity 1020—1030. At first no albumen was present, but towards the end traces appeared. There was no sugar, but a positive Diazo reaction was obtained. The patient developed

bronchitis. His general condition remained very unsatisfactory, and he died suddenly after a bath on May 6th.

Post-mortem examination.—The skin was so tough that the section was difficult. Under the epidermis was a 1 cm. thick, very dense, white corium sheath. The thyroid was normal. There was about 1 litre of serous fluid in the thoracic cavity. The lungs, apart from slight compression-atelectasis, were normal. The heart was not enlarged, the musculature being well-developed and of yellowish brown colour, and the valves normal. The spleen was enlarged (21 × 12 × 7 cm.) and its substance soft. The liver was also enlarged and of a dark brownish red colour. The kidneys and suprarenal bodies were normal, and there was no swelling of the lymph-glands.

Microscopical examination.—The skin showed an excessive cornification. Here and there small vacuoles were present in the cell bodies. The pigment of the basal cells was increased. The papillary layer showed numerous small round cell clusters, often arranged round the blood and lymph vessels, and a distinct œdematous rarefaction of the connective tissue. In the deeper part of the corium there were large cell collections. Under a high power some cells were seen with polymorphic fragmented nuclei, others with small eccentric nuclei with relatively large cell bodies (plasma cells?), and less numerous cells with round, deeply-stained nuclei and large cell bodies. The spleen gave the impression of a chronic congestion. The liver, kidneys, and suprarenal capsules were not diseased. The author discusses the diagnosis. He dismisses erysipelas, eczema, and Addison's disease. The case might belong to the class described in recent years of universal idiopathic œdema. Lastly, he considers the possibility of its being a case of diffuse sclerodermia, and concludes by remarking that if such were the case then this particular instance must be regarded as the early stage of that affection.

WILFRID B. WARDE.

THE FINSEN LIGHT AND THE ROENTGEN RAYS IN THE TREATMENT OF DISEASES OF THE SKIN. J. F. SCHAMBERG. (*St. Louis Med. and Surg. Journ.*, vol. xxxvi, January, 1904, No. 1, p. 21.) (Read at a "Symposium on Radio-therapy," Philadelphia County Med. Soc., November 11th, 1903.)

SCHAMBERG reviews the results of the treatment of 111 cases by Finsen light or by X-rays. Twelve patients were treated by Finsen light (seven lupus, and five lupus erythematosus). Of these cases none were cured, although improvement occurred in some. Schamberg regards the "disappointing results not as indicating the failure of concentrated light in the treatment of lupus, but rather as evidence of the insufficiency of the simplified lamps." (The London Hospital modification of the Lortet-Genoud apparatus was used throughout.) "Wherever the big lamp employed by Finsen is used the results are said to be highly gratifying."

Nearly one hundred cases were treated by the Roentgen rays, including twenty-seven epithelioma, fourteen acne, sixteen eczema, and examples of a great many other skin diseases. Very satisfactory results were obtained in cases of superficial epithelioma about the face, but with deep-seated cutaneous or subcutaneous cancers, and with carcinomata of the mucous membranes, the results were not encouraging. Although a good many of these later improved strikingly at first,

not infrequently the disease subsequently relapsed and spread. Thirteen of the cancer cases were cured. A distinct advantage of the X-ray treatment was the beautiful cosmetic result, but many of the cases could have been more speedily cured, and with less expense to the patient, by other means. The rays have a special advantage in small epitheliomata upon the borders of the eyelids, or at the alæ of the nose, etc. They are of great value in rodent ulcers about the orbit where there is destruction of tissue rather than growth.

In the treatment of acne vulgaris Schamberg believes that no remedy can approach in efficacy the X-rays. The ultimate result is often brilliant, rebellious and long-standing cases yielding to the treatment in a short time, and most gratifying of all, the cures are as a rule permanent. In eczema it had not been possible to definitely estimate the curative influence of the rays, as the cases treated had also ordinary remedies applied, but from comparison with other results the author regards them as an important factor in the cures effected.

Other papers on radio-therapy were read at the same meeting. Kassabian (*Technique of Roentgen Ray Treatment*) gave a useful summary of the apparatus and methods. At the conclusion of his paper he emphasises the need of the standardisation of X-ray treatment for the attainment of accuracy and perfection of the art. Clinical results as a guide to X-ray procedures are unscientific.

The Treatment of Carcinoma and Tuberculosis, G. E. Pfahler. To illustrate this paper the writer records several selected cases, and among others the following noteworthy results:

1. Two cases diagnosed as carcinoma of the breast completely cured by X-rays, and a third case in which improvement was taking place when treatment was discontinued on account of a burn.

2. Sarcoma of the orbit with remarkable improvement under X-rays.

3. Two cases of tuberculous glands in the neck cured by X-rays.

N. M. Sweet (*Roentgen Ray Treatment of the Eye and its Appendages*) points out the great value of X-rays in—

1. Detecting the presence or absence of foreign bodies in the eyeball, and of localising them when present.

2. In the treatment of certain forms of superficial growths in the region of the eyelid, such as epithelioma and rodent ulcer.

3. In the treatment of chronic affections, such as trachoma and vernal conjunctivitis.

H. K. Pancoast (*Roentgen Ray Treatment of Keloid*) concludes that—

1. Keloids are amenable to X-ray treatment, but it is long and tedious, and does not completely restore the normal appearance.

2. Future cases will be operated upon first and the rays subsequently applied in an effort to prevent recurrence.

H. G. ADAMSON.

THE EFFECTS OF X-RAYS UPON LOWER ANIMAL LIFE AND THE TUBE BEST SUITED TO THEIR DESTRUCTION. KENNON DUNHAM. (*Bulletin of the Johns Hopkins Hosp.*, February, 1904, p. 51.)

THE objects of this paper were to ascertain what effects the X-rays had on lower animal life and the best technique to employ. The reason for the research was based on the analogy between such lower organisms and the new cells of a

malignant growth and the possibility that if the tube were capable of destroying lower organisms quickly it would also be of value in the destruction of new growths. The organisms chosen in these experiments were *Chilomonas*, *Paramecium aurelia*, *P. bursaria*, *Cryptomonas*, *Rotifera*, and *Arcella*. Whenever a specimen of one or other of these organisms was exposed to the rays another similar specimen was placed in a lead box to serve as a control.

The writer noted first a considerable difference in the destructive power of the various rays. The strongest were those directed perpendicularly from the centre of the anode-plate. He obtained the best results if a sheet of lead were rolled into a cylinder and the rays directed through it. The most destructive rays were produced by a medium low tube excited by a heavy electrical discharge which had been passed across spark-gaps or through other resistance sufficient to produce rays of great penetrative power. Very low tubes showed no effect upon the organisms, neither did very high tubes. The closer the tube was to the organisms the more potent were the rays. Immediately around the tube a high-frequency current is induced which is very destructive to those organisms. This current had no effect on specimens removed five inches from the tube. Hence five inches was considered to be the closest that the tube might be brought to the part to be exposed with absolute safety.

The apparatus employed in the experiments here recorded consisted of an 18-inch coil, a mercury turbine interrupter drawing $5\frac{1}{2}$ ampères from a 64-volt storage battery, two spark-gaps of three inches each, two vacuum tubes, one high, the other low, in series with a medium low Gundlach tube of 8-inch diameter. The organisms were placed in water in the well produced by a circular rim of brass cemented on to a microscopic slide, the water being kept from evaporating by means of a piece of twisted cotton wool passing from it to a cup containing water and placed at a slightly higher level. From his experiments the writer found that various forms of single-cell life such as *paramecium* and *chilomonas* were killed by the X-rays, while more complex organisms, such as *rotifera* and *cryptomonas*, were unaffected by it. He concluded that the closer the tube was to the object treated the more destructive were the rays; that lower tubes excited by small currents were not so destructive as lower tubes excited by heavier currents, which were resisted; and that very high tubes had very little effect. In short, acknowledging the relation between these lower organisms and new malignant cells he believed that the best rays to destroy epitheliomatous and sarcomatous cells were those from the lower tubes excited by a heavy current with much resistance.

[While agreeing with the author in his conclusion with regard to the great potency of low tubes with heavy currents, it is well to remember that it is just this type of tube that is most liable to cause dermatitis, burning, and subsequent ulceration.]

J. M. H. M.

TWO CASES OF LEUKOKERATOSIS BUCCALIS; COMPARISON WITH THE HISTOLOGICAL CHANGES IN A CASE OF TYLOSIS PALMÆ ET PLANTÆ. By SYLVAN ROSENHEIM. (*Bulletin of the Johns Hopkins Hospital*, February, 1904, p. 47.)

AMONG the earliest reports of this condition of the buccal mucous membrane are those of Müller in 1851 and Hulke in 1869. The latter observer named it

which became more and more severe. Ten days before admission to the hospital Dr. Bowen noted the eruption to be papular, vesicular, follicular, and macular, with hæmorrhages old and new. The rash was localised at first on the extensor surface of the forearms, but became gradually generalised. In the hospital the eruption was noted to be erythematous and papulo-macular, confluent on the face, neck and trunk, discrete on the limbs, associated with hæmorrhagic areas. Small bullæ existed on the palms. The papules felt shotty. Bowen's note at this time was "purpuric and vesicular eruption, mostly follicular." Microscopically sections of the skin showed epidermic cavities, three containing masses of small cells, mostly mononuclear with little or no protoplasm, and probably similar to those seen in the blood-smears. Some cells contained chromatin fragments. One cavity contained some red blood-cells. In the papillæ and corium there was a moderate amount of cell-infiltration in places, some cells having fragmented chromatin; others of mononuclear type. No polynuclear leucocytes were definitely observed in the epidermis or dermis.

T. C. F.

SOME ADDITIONAL CASES OF BLASTOMYCETIC DERMATITIS.

T. CASPAR GILCHRIST. (*Journal of Cutaneous Diseases including Syphilis*, vol. xxii, March, 1904, No. 3.)

PROFESSOR Gilchrist publishes three unrecorded cases, making a further reference to the one published in the *British Medical Journal*, 1903, and calls attention to an Indian example related by Dr. R. McCarrison in the *Indian Medical Gazette*, April, 1903. The paper is enriched by some interesting illustrations, including two photographs of what were probably examples of papillomatous syphilitic lesions closely simulating blastomycetic dermatitis. Gilchrist points out that in the large majority of the recorded cases (over forty) the clinical symptoms, and particularly the histopathology, are practically identical. Four cases were systemic, one commencing probably in the lungs. In all there has been great similarity in the morphology of the organism as it occurs in the tissues and purulent exudate. No mycelia have ever been found in the tissues. From a cultural standpoint many varieties have been described, some cases yielding chiefly budding forms, some mostly mycelial growths, whereas others have yielded aërial hyphæ (Gilchrist's Case 1 of the series now recorded for example). Potassium iodide seems to have a marked resolutive effect, and Case 1 recovered under the application of this drug and X-rays. It would have been interesting if the precise influence of the rays had been further described.

T. C. F.

TO THE KNOWLEDGE OF TUMOURS OF THE SEBACEOUS GLANDS. R. KOTHE. (*Archiv f. Dermat. u. Syph.*, February, 1904, p. 359. Four Plates.)

THE following are the conclusions arrived at by the writer of this paper, the first part of which has already been abstracted in our journal:

1. He considers such tumours to be adenomata which are built up of new tissue, similar to gland-tissue, and in which the power of secreting is reduced.
2. The multiple, miliary, symmetrical tumours of the face (Adenoma sebaceum

of Pringle) ought not to be identified with the symmetrical sebaceous-gland nævi described by Jadassohn. Ætiologically they do not belong to the group of nævi, but are true adenomata. The case described by the writer conformed to the type of Pringle and was one of "Adenoma sebaceum disseminatum."

3. Adenomata of the sebaceous glands are more common in a second form, in which they exist as circumscribed single tumours, which are not arranged symmetrically, and are distributed in various regions of the body, but chiefly on the scalp and face (Adenoma sebaceum circumscriptum).

4. The microscopical changes detected in both these types of sebaceous adenomata are identical.

5. Besides the true adenomata there are new formations associated with them which outwardly resemble a sebaceous gland, but are in reality epithelial in origin and grow on the basis of an adenoma through the proliferation of the epithelium lining the outside of the acini of the gland, or are derived from the epithelium of the hair-follicle. Those which conform to the type of Adenoma sebaceum of Pringle have been termed Epithelioma adenoides cysticum, while the others have been designated as "Epithelioma sebaceum circumscriptum."

6. In both forms of epitheliomata we have a transition stage between adenoma and adeno-carcinoma.

The paper is illustrated by coloured drawings of the clinical appearance of the eruptions and of the microscopical changes.

J. M. H. M.

TO THE KNOWLEDGE OF IODODERMA TUBEROSUM FUNGOIDES.

A. SCHÜTZE. (*Archiv f. Dermat. u. Syph.*, March, 1904, p. 65.)

IN this contribution a case of Iododerma tuberosum fungoides (Rosenthal) is described, and a *résumé* of the literature on the subject is appended.

The patient was a woman aged 53, the subject of syphilis. After taking about 29 grms. of iodide of sodium in the course of several weeks, she developed an ordinary iod-acne of the bridge and sides of the nose. It began as a number of small pin-head-sized pustules on red bases. These increased in size, became confluent, and finally a granulomatous mass formed, dotted over with pustules and covered with crusts. This involved the whole of the nose and extended on to the cheeks. Secondary inoculation produced lesions on the trunk and upper extremities, and the vaccination scars on the left arm became affected and ulcerated. Local treatment resulted in the resolution of the granuloma in about a month.

J. M. H. M.

CONTRIBUTION TO THE KNOWLEDGE OF BLASTOMYCOSIS OF THE SKIN.

G. LOWENBACH and MORIZ OPPENHEIM. (*Archiv f. Dermat. u. Syph.*, March, 1904, p. 121. Three plates.)

THE case here described was very probably one of blastomycetic dermatitis, affecting the nose of an agricultural labourer aged 26 years. A unicellular budding organism, resembling that found in the American cases of the disease, was detected in the sero-purulent discharge and crusts of the lesion, and was also found in the tissue histologically. Unfortunately the writer did not succeed in cultivating the organism on artificial media, and an inoculation experiment also

gave negative results, so that the final proof of the nature of the affection remained wanting. The patient came up for treatment at Professor Neumann's clinic in Vienna in February of last year, and was demonstrated a month later at the Dermatological Society of Vienna, by Oppenheim. When he was first seen the nose presented the following appearance:—Involving the front of the nose from the bridge to the tip, spreading over towards the right ala nasi, and extending completely over the left ala there was an irregular, soft, raised, diseased patch. It was bluish-red in colour and separated from the surrounding skin by a well-defined irregular border. Dotted irregularly over it were a number of yellowish translucent nodules about the size of hemp-seed. On pricking these a bead of blood-stained inspissated pus could be expressed. On the left of the middle line there was a deep ulcerated furrow which extended up from the side of the tip of the nose to the bridge. The edges of this furrow were verrucose and papillated and resembled the condylomata acuminata of the genitalia. The lesion had begun to be noticeable about fourteen years before he came under observation at the Krankenhaus. A piece of the tissue was removed and examined microscopically, and the histological appearances typical of blastomycetic dermatitis were found. The epidermis was irregularly thickened, numerous small abscesses were present in it in which the yeast-cells could be seen, and there was a granulomatous cellular infiltration in the papillary layer of the corium. The patient was treated with large doses of iodide of potassium, beginning with 2 grms. up to 15 grms. a day, and in three weeks a very great change for the better had taken place; the induration had diminished, the sero-purulent secretion had dried up and the scabs separated, and the small pustules had disappeared. A careful summary of the literature on the subject is appended, and the paper is illustrated by coloured drawings of the nose before and after treatment with iodide of potassium, and also drawings of the microscopical appearances.

J. M. H. M.

ON THE MAXIMUM INJECTABLE DOSES OF MERCURY. CH. AUDRY (de Toulouse). (*Journal des Maladies Cutanées et Syphilitiques*, vol. xvi, No. 2, February, 1904, p. 104.)

AUDRY, referring to Laborie's article in the previous issue of the Journal, calls attention to the fact that, with an average number of 4—7 injections, each patient received from .90—1.50 grammes of metallic mercury—an enormous dose. He admits the complete efficacy of the injections, but an equal result might have been obtained with 0.05—0.10 grammes of calomel, and it is possible that a smaller dose of mercuriol might be as efficacious.

From his experience of the mercuriol treatment he draws the following conclusions:

1. Mercuriol affords perhaps the best mode of administering large doses of metallic mercury by injections.

2. With proper care of the mouth doses of 0.25 grammes of metallic mercury may be injected weekly for six or seven occasions.

However, it would be wise not to abuse these doses, and it will be necessary to determine whether they are really serviceable, and in what cases.

H. G. ADAMSON.

STUDY OF THE TREATMENT OF SYPHILIS BY INJECTIONS OF OIL OF MERCURIOL. G. LABORIE. (*Journal des Maladies Cutanées et Syphilitiques*, vol. xvi, No. 1, January, 1904, p. 1.)

MERCURIOL is an amalgam of mercury, magnesium, and aluminium, originally prepared by Blomquist, of Stockholm, for Welanders, who used it in "sachets" for the treatment of syphilis by inhalation. It has the property of easily decomposing under the influence of air, or still more readily on contact with water. A similar reaction takes place with the serum of organic tissues, and this has suggested its use as an intra-muscular injection, and Blomquist has prepared an "oil of mercuriol" for this purpose. Injections of this preparation have been employed by Moeller, of Stockholm, in a large number of cases of syphilis with excellent results (*Archiv f. dermat. und Syph.*, 1903, t. lxvi, p. 89). He regards it as a cleanly, convenient method, exact as to dosage, painless and efficacious. These injections have also been tried in the clinic of M. Audry in Toulouse in twenty-four cases, and Laborie here reports the results and compares them with those of other methods of treatment. Laborie concludes that the "oil of mercuriol" may be employed in the same circumstances as other insoluble injectable preparations of mercury, viz., when an energetic treatment or a rapid result is required, and when large doses of perchloride are ill-borne or inunctions are inapplicable. Under such conditions, in the clinic at Toulouse, grey-oil injections have been found to be efficacious, well tolerated, and acceptable to the patient on account of their infrequency. Insoluble preparations are never injected, as they have no special advantages, but the great inconvenience of frequent repetitions. Oil of mercuriol fulfils all the indications of the grey oil, is perhaps superior in point of activity, and is undoubtedly superior as a pharmaceutical preparation.

A slight objection to its use is the necessity of avoiding all contact with water, and the syringe must be sterilised by dry heat. Four to five divisions of a Luer syringe (1 division = $\frac{1}{80}$ c.c.) of a mixture of oil of mercuriol (containing 90 per cent. of mercury) with two parts by volume of dehydrated oil of almonds are injected once a week.

[Oil of mercuriol may be obtained from Maison Riedel, Gerichtstrasse, 12, Berlin, No. 39.]

H. G. ADAMSON.

TREATMENT OF LEPROSY BY HYPODERMIC INJECTION OF BICHLORIDE OF MERCURY. NEISH and TONKIN. (*The Bristol Med.-Chir. Journ.*, March, 1904.)

NEISH and Tonkin in a paper on leprosy in Jamaica report favourably of intra-muscular injection of mercury-perchloride as an adjuvant to good feeding and careful general attendance. Perchloride of mercury and common salt, of each grain $\frac{1}{2}$ dissolved in 20 mms. of distilled water, was injected twice weekly in a hundred cases. The injection causes pain and an indurated lump locally. No abscess was observed, and in only one case profuse salivation.

T. C. F.

PLATE I

DR SHILLITOE'S CASE OF "VARIOLOID" SYPHILIS.

THE BRITISH JOURNAL OF DERMATOLOGY.

AUGUST, 1904.

A CASE OF A PUSTULO-PAPULAR SYPHILIDE OF THE SO-CALLED VARIOLOID TYPE.

By ARTHUR SHILLITOE, M.B., F.R.C.S.,

Surgeon to the London Lock Hospital.

THIS case was shown by me at the April meeting of the Dermatological Society of Great Britain and Ireland, and is the second example of this somewhat rare syphilide which I have exhibited in the last fifteen months. The appearances in the two cases, however, differ markedly.

In the first case (see *Brit. Journ. of Dermat.*, vol. xv, p. 107), the patient had suffered from smallpox thirty-six years previous to acquiring syphilis, his face and other parts being thickly scarred. For the first two or three months he made satisfactory progress under antisyphilitic treatment, when somewhat suddenly in the course of a few days, after various premonitory symptoms such as malaise, and severe head pains, each variola scar became the seat of a hard, deep-red, smooth papule, about the size of a swan-shot. On the protected parts of the body the variola scars were not nearly so universally implicated as on the face and hands. Under treatment the pseudo-hypertrophied scars rapidly flattened, leaving an intense pigmentation, but undergoing neither pustulation nor umbilication.

This case was apparently one where the toxin had concentrated its energies on parts the resistance of which had been lessened by another disease, to wit, variola, thirty-six years previously. But

when exhibited, and before knowing the history, the appearance resembled a marked case of smallpox.

The present case gave the following history (see Plates I and II). The patient was a well-nourished man, twenty years of age, a warehouseman by trade, whose height was 5 ft. 3 in., and weight 8 st. 1 lb. There was nothing in the family history bearing on the question, and with the exception of an attack of gonorrhœa four years before, he had no recollection of ever having been ill.

Early in February of the present year, he noticed a sore on the inner surface of the prepuce, this date being about one month after the last exposure to contagion. He consulted no one till March 21st, when finding he could not retract the prepuce, he attended a hospital, where he was given a lotion to thoroughly irrigate the part. On April 23rd, a general eruption appeared together with a sore throat. His people, fearing that he had something infectious, refused to allow him to stay at home; he went to the union, from which institution he was transferred to the Lock Hospital. On admission he was obviously ill, almost too much so for purposes of exhibition, and it was extremely difficult to obtain any straightforward history from him. The body was almost entirely covered with a marked papular eruption with the exception of the cheeks and oral region, both wrists and hands, the scroto-femoral regions, and the lower half of the dorsa of both feet. Thickly scattered between the papules was a very large number of pustules, many of them, especially on the back, showing umbilication. Each pustule was about the size of a large hemp seed, and was surrounded by a deep red areola without any marked basal thickening.

Taylor, of New York, says: "These pustules have no tendency to a follicular origin, but are found on parts where the skin is soft and delicate." Further he states that "it is rarely the first eruption in syphilis. The mode of invasion is slow, beginning on the face and spreading over the body in two or three weeks." In this case the eruption was apparently the first symptom which frightened the boy, and the mode of invasion was very rapid, having spread between April 23rd and 26th over the whole of the body. Mr. Hutchinson quotes an example where there was, as in this case, marked febrile disturbance, which Taylor thinks is not usual. Bangs and Hardaway point out that when these lesions occur in the early secondary stages as a general eruption, they may be accompanied by a marked febrile dis-

turbance, which is higher than in any other form of syphilis, and pyogenic organisms undoubtedly play an important rôle in causing it. The manner in which the eruption avoided the exposed parts, the face, wrists, and hands, so often the seat of a smallpox eruption, was very noticeable.

SOCIETY INTELLIGENCE.

DERMATOLOGICAL SOCIETY OF LONDON.

A MEETING of the above Society was held on Wednesday, June 8th, 1904, Dr. RADCLIFFE-CROCKER in the chair, at which a demonstration was given by Dr. A. E. WRIGHT and Captain DOUGLAS "On the Employment of Antistaphylococcic and Antitubercular Vaccines." *

Dr. RADCLIFFE-CROCKER introduced Dr. Wright and Captain Douglas to the Society, and invited Dr. Wright to begin his demonstration.

Dr. WRIGHT proceeded as follows:

Mr. President and Gentlemen,—I am very grateful for the opportunity which has been afforded me of coming here and laying before you my views on the subject of these inoculations against tubercle and against staphylococcus. I have been doing a good deal of work recently with Captain Stewart Douglas on the subject, and in coming before you I feel that you are a sort of final Court of Appeal on this question. I feel that because we are endeavouring, by means of inoculation, to treat cases of tubercle and of staphylococcus invasion, and I have been dealing particularly with lesions which can be seen, namely, those on the outside of the body. Since that is your department, and since you have chosen this subject, presumably, because it is comforting to have a science in which you are dealing with things which you can see, and in which when a cure has been effected you can definitely appreciate it with the naked eye, I shall bring before you chiefly the work I have done in connection with tubercle and staphylococcus infections which were visible to the naked eye. And therefore, although I think this matter has a wider application than dermatology, as it is not confined to immunizations against surface infections, still, after all, I lay most stress upon you, because you are a people who can judge whether cures are effected or not; whereas if you

* Specially reported by the Society. The report has been corrected by the Secretary of the Dermatological Society and not by Dr. Wright.

before you I am going to say whether the cure of a lung is effected or not. There is a certain amount of doubt which cannot be got over. Therefore I am dealing with these questions of the different bacterial diseases. I want to prove the case to you by bringing patients and saying "This man was ill, but now he is cured," but I want to appeal to you as a scientist with sympathy if possible, the principle of a certain scientific method; and I want to show you the technique which we have employed. I feel constantly that my veracity is very much in question. When I say that I have inoculated this man with five thousand millions of bacteria I feel that certain prayers are going up for my soul. And similarly, when I say there is a phagocytosis, and I can estimate the quantity of it, my friends smile and my enemies say I have my finger on the pulse. Therefore I am anxious to show you the technique which we have employed, and to point out that these are not imaginative matters: that we can actually count the bacteria in the culture, and that when we say we inoculate five thousand millions of bacteria one is saying that which is absolutely true: that there may be 10 per cent. of error, but there it is no more than that; there is never any question of 50 per cent. of error. Therefore there is a sufficient approximation to the truth to warrant one in regarding it as a scientific method.

With this prelude, I wish first, in this room, to try to induce you to consider sympathetically anyone working at a process of immunization, and afterwards, in the other room, to show you the methods which we have employed. When it is a question of fighting against a bacterial disease, obviously we have only two means at our disposal for combating the effects of the bacteria. On the one hand we may resort to antiseptics, particularly where the disease affects the skin, and, on the other hand, we may depend upon the protective substances elaborated by the organism for the destruction of those bacteria. I believe I am not wrong in saying that you dermatologists chiefly work with the antiseptics, and that the precepts of dermatological therapeutics have hitherto been supposed to be limited to the application of suitable antiseptics or disinfectants. And I know that Sabouraud, who has done work on the subject, has prescribed a choice of antiseptics for particular bacteria. For instance, he has stated that sulphur is most effectual in staphylococcus aureus. He has, I say, developed to some extent the choice of antiseptics beyond the application of antiseptics generally to bacterial infections. Knowing

that, I saw with malicious satisfaction, I am sorry to say, a statement which Sabouraud recently made in the Pasteur Institute, in which he said one had founded great expectations on antiseptics in the treatment of bacterial diseases of the skin, and it is not too much to say that they have practically done nothing. I do not know whether you will echo that, but Sabouraud is a distinguished member of your own Faculty, a man who has not been wanting in enthusiasm in the application of antiseptics; and he comes to the conclusion that the method is an ineffectual method, and that there is not much to be hoped for from its application. Then there is the other class of substances, those protective substances which the organism develops itself. I do not know what credit the dermatologist takes for the number of cures that go on under his hands. I assume that in a certain percentage he attributes them to Nature—in other words, that sometimes when he finds that he has failed by his antiseptics he finds the patient getting well in consequence of the protective substances he has evolved. In order to develop those, I think, he resorts to no means except turning his patient out to grass, feeding him well, and putting him under good sanitary conditions. So what I want to put to you is, that those are inadequate methods of encouraging the manufacture of protective substances in the blood. The proper way of applying antiseptics to the cure of diseases is by artificial means to stimulate the body to the production of these substances. And not only must they be produced in the body and be circulating in the blood in sufficient quantities, but you must determine them to the particular site of infection. That is quite a small point, in comparison with the other, but I want to make my meaning clear concerning it.

I have recently examined cases of tubercular infection and staphylococcic infection, as I have before in cases of typhoid, and in cases of Malta fever. The method I have employed is to draw off small amounts of blood and pus from patients with tubercular or staphylococcic disease, and centrifugalise them. And I have taken the clear fluid and measured the amount of protective substance in that serum, and compared it with the protective substance in my own blood. The results have been very striking. In most cases there has been hardly a trace of protective substance in the pus from the abscess, whereas in the blood there has been a considerable quantity. And after the abscess has been opened up and fomentations employed, which, I

take it, determine the flow of blood and lymph to the part, the quantity of protective substance has been compared with that in the blood. .

A patient may suffer from bacterial infection either because his blood contains an insufficient amount of protective substance, or because the micro-organism has managed to grow locally in a particular region where the lymph stream flows slowly, and there is not a perpetual supply of protective substances in the blood. The treatment of septic wounds depends on that principle. An arm gets cold and has a septic infection, and the circulation is stagnated; the infection gets worse and worse, and the method of treatment is to put it into hot water, to parboil it, and apply hot fomentations, so as to bring a larger blood supply into the limb. That is equivalent to the method of douching the infected portion of the body. I have under treatment a case of lupus of the skin, and, so far as the superficial lesions go, the case is doing very well. Still, there is a tubercular dactylitis, and I think the blood-stream flows slowly, and the tissues are very much destroyed. I can hardly hope to get protective substances circulating through that finger, and Mr. Low proposes to take off for me those two tubercular fingers. So even in a particular case where I have increased the protective substances in the blood, where I think I can see clinical benefit in the form of immunisation of surface lesions, there is a sort of nidus so badly supplied with blood that I can hardly hope to bring my protective substances to that region with effect. Therefore I think the best thing for that patient is to get rid of those sites of infection by surgical means. You may assume, however, as a rule, that when you have enough protective substance in the blood it is a minor matter to bring it to the particular place required; and if it is a lymphatic gland you get an increased flow of lymph through it, and in that way you get the protective substances in contact with the bacteria.

I now leave that and come to the question of how we can increase the protective substances in the blood. In point of fact, there is a whole art in this thing, and it is an unstudied art. It will finally be a department of physiology; and every medical student, instead of learning only the physiology of digestion and circulation, will take it as his most necessary duty to learn the physiology of immunization, to learn what the processes are by which bacterial infections are

driven out when people are spontaneously cured, and to learn what the limits and resources are of the patient when he endeavours to increase those protective substances in his blood.

Now I want to draw on the board a series of curves to indicate to you, roughly, what is known about the production of protective substances after the inoculation of vaccines into the body. For our purposes vaccines are any substances that, on being inoculated into the body, will cause the generation of a protective substance. To make the term a wide one, if I inoculate a dead culture of staphylococcus I want to call it a vaccine, just as much as if I inoculate an organism in the case of small-pox vaccine. And I want to include in that term Koch's new tuberculin, consisting of ground-up bacteria brought into suspension. That seems to be exactly the same sort of thing as inoculating staphylococci held in suspension. In the one case the tubercle bacilli are ground up, and in the other the staphylococci are separated by shaking. So that the difference is only a small one. So whatever vaccine I employ will consist of a bacterial body. And what is the reaction of the human body to that?

If we take a normal man and test his protective substances against staphylococcus or against tubercle, as the case may be, and then take a patient who is affected with acne or furunculosis, we find there is much less protective substance in the diseased man's blood than in that of the normal man. In fact, if the normal amount of protective substance be represented by 1, you will find that the protective substance of a man who is the subject of staphylococcic invasion will be .3, or .4, or .6. Recently we have found that the same sort of thing holds true in the case of tubercle with regard to the phagocytic power of the blood. We have had twenty or thirty cases recently and found that we could pick out our tubercular patient by the fact that he has a diminished protective power with respect to the tubercle bacillus. Therefore I take it that infection by a particular micro-organism means that the patient possesses a small power of resistance, and has less protective substance in his blood.

The next question is to study the course of events after the inoculation of a vaccine. If we take a straight line as representing the amount of protective substance in a man's blood, and at *this* point I make an inoculation, then, if we have inoculated a sufficient amount of vaccine to produce constitutional symptoms, we get a

diminution of protective substances in the blood, a less quantity when we test it quantitatively. That diminution in the quantity of the protective substance I have denoted by the term "negative phase"; and I wish you to consider that as being followed by stimulation. During the period when this curve has gone down the poisons which we have introduced are circulating in the blood of the person or animal, and the immunization is under the influence of stimulation. When you have taken that to heart you must see that immunization must produce a negative phase, that it is not possible to get the body to do anything without first stimulating it, and the stimulus consists in the application of this poison to the cells, using up whatever protective substance is in the blood. If the dose is considerable, you get a large negative phase, and that negative phase may be extremely prolonged. That is to say, you have applied a stimulus which will continue to act for days, and the material which you have injected will continue to circulate for that time. If the patient be the subject of acne and you have inoculated staphylococcus vaccine, you will at first expect to find the appearance of new acne pustules, or the furunculosis will become somewhat aggravated. But by exercising care we can make the negative phase a small one, and that is the first thing to aim at. One should inoculate a dose of vaccine so small as to get a very transient negative phase; you cannot get rid of it. With ordinary doses of staphylococcus vaccine you can make the condition a little worse for one day at the most. After that you get a positive phase developing, and your curve goes up beyond your starting-line, showing the production of protective substances in the blood. Clinically, I have seen that exemplified in the person of a dermatologist, who did me the honour of coming to be inoculated. He said he was the subject of boils, which he had been having for years. I gave him an inoculation of staphylococcus vaccine, and on the following day he developed a boil. He told me that normally when a boil came it persisted until it produced necrosis, and then he had the slough coming away. But on this occasion the boil aborted. Frequently after these inoculations one gets a history that on the next day the boil began to be worse, or that a new boil appeared, and that then it aborted. That abortion is associated with the development of protective substances in the blood. If the blood of such a man be tested in two or three days, you find an increased phagocytic power

in it, but that height is not kept up. If one could keep the resistive or protective power of the blood up to that height, one inoculation would suffice; the patient would be a changed man, and his troubles would cease. As a matter of fact, this reaction gives way in a short time, and if you leave the patient alone you find the curve drops considerably. But it does not drop to the normal. It has dropped to a certain extent, and slides off, but it remains at a higher point than the original base level. It may not be very much above the original height, but it is something to work upon. If you give a second inoculation at the period when the curve is descending you get the same process repeated, so that you find the degree of protection going up in step-ladder fashion. I have placed on the table in the adjoining room for your inspection a series of curves. In some of them you will see characteristically marked off that higher base-line. To get the full curve which I have described, you would have to examine the blood every day. Usually in hospital practice, or even in private practice, I presume, you would examine the patient after the first inoculation, and *here* in the curve. By such observations you would get a curve like *this*, one which did not show any negative phase. I have several cases of curves of that sort. They are incomplete curves, because the observations have only been taken at ten-day intervals. This shows a gradual rise, and the negative phase dropping out of sight. That is because they have not been examined every day.

That arrangement is, I think, the ideal way of inoculating, when you get a curve of *that* sort. It is possible—and I know Dr. Dean of Elstree has done it in connection with antitoxic inoculation of horses—to inoculate on the rising limb of the curve, and to produce a rise like *this*. We have not tried that in man. It is possible that you might inoculate without waiting for the curve to come back; by small doses you could produce a gradual rise to the extreme. All these considerations involve the giving of doses which are measured, and seeing that each time the patient has made progress from the last, taking care always that the doses are not too big so as to bring the man's health down. I have the curve of a case in which I kept on inoculating in that sort of way, and where the patient's protective power was brought down. The case was one of tubercle. Three or four inoculations brought her protective power up high. The inocu-

lations were continued, and her curve fell away. When you over-ply the system with that stimulus, you lose what good you formerly accomplished and the patient is brought back to his or her original base level. The case I am referring to was that of a woman with tubercular cystitis. She responded extremely well, and put on 6 lbs. in weight in response to the first two or three inoculations. They were continued, and she again began to lose weight, and so I was compelled to start from the beginning again. So you will see the method has possible dangers in it if careful observations are not taken, and if the doses are not properly interspaced and properly measured. If you ply patients with larger doses, or too frequently, you will undo all the benefit you may have conferred.

It has been reported to me by Dr. Graham Little that the ordinary opinion of the dermatological world with regard to Koch's new tuberculin is, that it does good at the beginning, and that you lose all that good afterwards. I suggest that if doses are given regularly you get an improvement, but if you go on giving doses you lose the advantage which you have gained. And I am anxious that you should not judge of the possibilities of tuberculin inoculations from a system of giving doses regularly without measuring the resistive power of the blood, and without considering the fact that it is possible to give too much vaccine, that you can give so much that it will make too great demands on the system, and that consequently you lose the little benefit which the tuberculin is able to confer. When you study the curves which are in the other room, particularly with regard to tubercle, you will see it is a very delicate matter, that you have to woo the patient extremely gently to begin with; you must give extraordinarily small doses, such as $\frac{1}{100}$ milligramme, and generally you cannot get to larger doses than $\frac{1}{20}$ of a milligramme. Many of the curves outside are curves like *this* (drawing). Finally the curve goes up, but during all the preceding period the patient was doing very little. I have one curve of a patient whose case may have produced an unfavourable impression. He came to St. Mary's Hospital with lupus of the nose, and he had a curve somewhat like *this* (drawing). He responded to the first inoculation, and then it went right down, and I lost all the immunisation. Then the patient, with many nice words and excuses, left St. Mary's, and went to Charing Cross Hospital, and I have no doubt an unfavourable impression would be produced by that case. It

is due to Dr. Galloway's presence here that I have got that curve, and I desire not to be tested on that curve, because the clinical curve says that you could not expect any improvement. I do not say that if I had given a smaller dose at a time in that case that I might not have got my effect, but the patient gets tired after a period of tries. Therefore one cannot judge from a curve of that sort. It has been christened by the French the "roof-tree curve," and it is a very good name. Bear in mind you are always inclined to get this curve. If you take an animal and inoculate it against cholera or typhoid, you will come to a point at which it gives out, because the protective substance comes down to the original level, and all the benefit is lost. It occurs in typhoid fever constantly. You come across a case of typhoid fever which has been subject to inoculations daily of toxic substances produced by the typhoid bacillus, and after a time, having responded and given you protective substances in the blood, he falls away, and you get a roof-tree curve. That is the crux of this system of inoculation. You want to lead him up by a step-ladder process to the highest base, and keep him there.

I have one curve of a patient whom I have kept at a higher level all through. I have dealt with her for eighteen months, and I have never again lost all the protective substance from the time I have spoken of. I have got her to a base level corresponding to my own blood with regard to tubercle, and she is extremely well. So the body has machinery for immunisation, and you can play tunes upon it if you know the laws. If you do not happen to know the laws when playing with it, it may be quite injurious. When we know more about this matter it may be possible, in an ordinary staphylococcus case, to begin prescribing with so many millions, and go on with so many millions, and it will work, and you will get a result on the average. But when you have a serious bacterial infection by staphylococcus or tubercle it is a matter which requires a great deal of labour to determine what will be the exact doses to inoculate in a given case. Those propositions apply both to staphylococcus and to tubercle.

And now, in order to introduce you to the question of technique, I want briefly to run through some of the processes I want to show you.

First of all you make a vaccine. In the case of staphylococcus you make a culture; and as you do not want to inoculate virulent staphylococci, you kill the staphylococci. You can kill them by

keeping them in a temperature of 60° for a certain time, and by that process you have not chemically altered the bacteria, and you will still get results when you inoculate that. We add a small amount of carbolic acid to prevent contamination afterwards; it is simply a precaution against an odd microbe dropping in and cultivating himself. Next you count it. In the case of staphylococcus, we use for making toxines cultures which can be easily shaken apart. Some cultures of staphylococci are very glutinous, so that you cannot separate them. We take a suspension of bacterial cultures which has been heated, and take one volume, and mix one volume with one volume of blood from the finger. We mix them together and make a volume. Then we stain, and we find on the field this sort of thing: we find red blood-corpuscles here and there, and in between them we see staphylococci. Having got the whole field we do our arithmetic. Three blood-corpuscles, three staphylococci, therefore the staphylococci are present in the same numbers as are the red blood-corpuscles. We know that the red blood-corpuscles are normally present in the blood to the amount of 5000 millions to the cubic centimetre, and if the staphylococci are equally numerous that must also be their number, and the number in the culture. You must not count the number of bacteria and the number of corpuscles in only one field, but you must take a number of fields. Usually we take 300 or 400 corpuscles and see how many bacteria we come across, and then we make a proportion sum: as 400 red blood-corpuscles are to 200 staphylococci; and we would say: so 5000 million, the number of red blood-corpuscles in the cubic centimetre of blood, are to x , the number of bacteria = 2500 million. That method gives results of very considerable accuracy; I do not think there is an error of more than 10 per cent., and there cannot be an error of 20 per cent. Therefore one has a clear view of the number of bacteria which are required for a particular inoculation. That is in regard to staphylococcus, and it is comparatively simple.

When it comes to tubercle vaccine the matter is not so simple. There is on the market a Koch's tuberculin. I have got the materials in the next room of which Koch's tuberculin is made. He takes tubercle bacilli and treats them with alcohol. He forms the assumption that the alcohol kills them. I have asked his assistants and the people in his laboratory, and they say, when asked if they are sure the alcohol kills the bacilli, that Koch says so. However,

there is no guarantee for it. Further, living tubercle bacilli have been found in Koch's tuberculin. At any rate, the first stage in Koch's laboratory is to treat the tubercle bacillus with alcohol. Next, he puts it in a mill and grinds it small. When it has been ground very small it is brought into suspension in glycerine and water. Ten milligrammes of it, contained in 1 c.c. of fluid, is sold for 8s. 6d. ; and a very dear 8s. 6d. worth it is when you consider how many bacteria there are in it. This material, this tubercle vaccine, is available in the market, but you may have living tubercle bacilli in it, and you will therefore think carefully before you inoculate it into people. But you can get over that by taking the tuberculin and heating it for an hour or two at 60°; you then have a tuberculin which is sterile. Then you make the dilutions which you require and inoculate the different dilutions. All our inoculations with tubercle have been done by that method, but we are going to employ tubercle cultures and make the vaccine ourselves, because we shall then be able to more accurately measure the strength of it. One begins with small doses and tests the effect, and that is the right method.

The process of inoculation need not be described; it simply consists of the sterilization and introducing of the syringe.

You next test the blood of the inoculated person, and therefore you have to employ different devices according to the nature of the protective substance produced. If you inoculate typhoid bacteria you get an increase of two thousand times in the bactericidal power of the blood. But you find the blood gains nothing in bactericidal power in staphylococcus inoculation. But we have found out that what is developed in the blood is a substance produced in the serum which, though it does not kill staphylococci, yet paralyses them, or makes them subject to phagocytosis; it converts them into suitable pabulum for phagocytosis; it alters them so that the white corpuscles can afterwards ingest them. Captain Douglas and I have called them by the name of the *opsonins*. The word was decided on with great difficulty by hunting through Greek and Latin dictionaries. It comes from a word meaning "I cook," "I prepare for dinner," "I make delicacies for." There is some substance in the serum which cooks the bacteria and converts them into delicacies which the white corpuscles phagocytose.

We have found, in the case of people inoculated against staphy-

lococcus, that their blood is richer in these substances than our own, and we made transferences. We have taken our serum and tried it along with the patient's white corpuscles, and we have taken the patient's serum and tried it with our white blood-corpuscles, and we find that the white corpuscles are not altered in the course of immunization. The only thing which gets altered in the body is the serum or liquid part of the blood, and that becomes richer in opsonins. Those are the substances which we found in the case of staphylococcus, and they increase. The curves I have drawn on the board, which are the curves of increased or diminished phagocytosis, were obtained after the inoculation of these cultures. In connection with tuberculin, these curves mean one of two things. So far as we know, the protective substances produced against tubercle are, first, agglutinating substances, like those you get in Widal's reaction in the case of a patient who suffers from typhoid fever. And the curves I have tested are, for the most part, the curves of agglutination of the patient's blood before and after inoculation. Recently we have discovered that opsonic substances exist in the blood for tubercle; and we have been testing in every case the phagocytic power of the blood; and we find, as I have told you, that a patient infected with tubercle is one with a small power of phagocytosis. And we have found that after inoculating the patient with tubercle vaccine, giving the proper interspaces, on measuring it we get an increased phagocytic power of the blood. This method I propose to demonstrate to you outside. I have specimens under the microscope of phagocytosis occurring in tubercle and in staphylococcus; and I propose to take my own blood, or anybody's—I had hoped I might have had a staphylococcus patient provided, so as to demonstrate that he would have a smaller opsonic power than the normal man, but you will have to take my word for it unless we can spirit one out of somewhere—and go through the process, and show you by what means we have been able to estimate it.

I think that is all I have to say on the matter with reference to these protective substances. You will see it is a science which is being only gradually developed: it requires a great deal more work to be done at it yet. I have published in the medical press accounts of the successes I have had with staphylococcus inoculations, and I am asked what has become of my failures. Up to the present I have had no

failures. If I had had a few failures with staphylococcus, my veracity would seem to be better than it is at present. I have a man who comes to me still from Derby, and as I think I made him worse, I can say I have had one failure. He seems to have very little power of producing protective substances in the blood. We found a temporary improvement for a week, but that was all. Short of that, every patient I have inoculated for boils has got well promptly. Some have had relapses five months afterwards; but every patient who has had acne and been inoculated has got distinctly better, and has gone away satisfied that his condition was cured. Some of my medical friends have been kind enough to say they would come to me if they had acne—one is here to-day—and in a severe case pustulation has disappeared after the inoculation, the pustulation which is super-added to the acne, and the acne and the scarring have remained as they were before. But it was a case in which there was much pustulation, and by inoculation against staphylococcus it has disappeared. And I have always seen it disappear; and very often when that disappears there is nothing to complain of in the way of acne; but in some cases you have still the formation of blackheads—I do not know the technical term for them.

The demonstration will require a certain amount of time, and I shall probably weary out the patience of most people in doing it. It requires a quarter of an hour cooking of the blood drawn from the finger. Then I have to make a film, and then stain it. Microscopic specimens can be examined now; the making of new ones would involve a certain amount of time. I would suggest that any debate might be taken now, and the demonstration afterwards.

Dr. RADCLIFFE-CROCKER: I am sure we are extremely indebted to Dr. Wright for his masterly exposition and very clear demonstration, as it has been, of a very difficult subject. It certainly promises to us a real advance in therapeutics. Hitherto with our antiseptics we appear to have been beginning at the wrong end, though I must say I do not consider our antiseptics have been a complete failure by any means, for I think we have made some very, very marked progress since we have used antiseptics—I should say one of the greatest advances in dermatology. But undoubtedly if Dr. Wright can make these processes so that they can come into general use, he will certainly have done it in a much more thorough and scientific way than we have hitherto been able to do it. We shall be very glad to hear any remarks or any questions which anyone may like to put.

Dr. WRIGHT: I have some curves here, and they might be passed round. The

man from whom *this* was taken had sycosis. He came back in ten days, and the curve rises up. Up to that time he received three or four doses of staphylococcus vaccine; and though there is no negative phase shown on it, there is an increase in the phagocytosing power to two and a half times the normal, the clinical condition being at the same time enormously improved. There we were venturesome, and we gave him three times as much as before. You see the result is a very considerable drop; he got a very pronounced negative phase, which lasted for over ten days. After that he began to recover. I think Dr. Graham Little showed this case. He was practically cured at Christmas-time, and went away. He then went in for alcoholic excesses, and relapsed in January. We inoculated him again, and got him up to his original level. He came back yesterday, having been four months at work, with further pustulation in his beard. Thus he was brought up to a good height of immunization, but in consequence of alcohol dropped down again. He was then brought up again, and his clinical condition improved. Having been at work—he works at coke—he came back with a further relapse. Here is the curve of a case inoculated by Captain Douglas at Netley. It was a case of sycosis. He had got a very low phagocytic power at the beginning, .8, as compared with the normal 1. He was then inoculated with small doses, and the protective substances increased in the blood immediately afterwards. He got a second and larger dose, and a negative phase was produced; but he got up high, and his blood remained at a higher level, and he got well. Simultaneously he lost all his symptoms, and his sycosis, which had been under treatment for months, got well. Then Captain Douglas left Netley, and we do not know the subsequent history of the case.

Here is a case of tubercle inoculation. A lady had been operated upon twice by Mr. Treves for glands in the neck, and once by Mr. Allingham, and the glands recurred, and it was a question whether she should be operated on again. She was tested with tuberculin, and there was no doubt she had tuberculosis. She was inoculated, and her protective substances rose up to the height shown, and they continued for three or four weeks at that height, and the enlargement of the glands disappeared, and she says she is absolutely free of them. I could not feel them any more, and her medical adviser is persuaded they have disappeared.

Here is the diagram of the case which I think Dr. Galloway has seen. I spoke of him as a case of lupus. He showed a certain amount of response immediately, and the second inoculation brought him to his original level. He remained low, and the result in his case has been the production of a roof-tree curve. He had produced protective substances, but lost them in consequence of being plied with too much vaccine.

Here is the case of a man who came in with severe acne of the face. He was engaged in the City, and he had three inoculations. We have only a progressive rise shown. His face got well of acne, and he is comforted. His appearance is certainly greatly improved. I heard from him the other day, and he said he had been well since last January, when I ceased inoculating him. It was a very severe case of acne, and he got practically well.

Here is the diagram of a case of lupus, that of a lady aged 31 years, who had three children affected with lupus. At the age of 14 she went to Guy's Hospital and had some fingers amputated for dactylitis. When Koch's original tuber-

culin came on the market she went into King's College Hospital and had 140 inoculations of it under Mr. Watson Cheyne, being inoculated every four hours. She says she got gradually worse, and one imagines it must have produced a roof-tree curve. She attended University College Hospital when the Finsen Light treatment came in, and then she went to the London Hospital. She is known to Dr. Sequeira. For two years she was treated every day with the Light treatment. Her neck got better under that treatment, but she relapsed again, and got the disease in her arm and breasts. She was so bad in St. Mary's that her arm had to be taken off. She came with lupus of the face and neck, and the stump of the breast, and for a period after inoculation she showed no response. But later the protective substances in her blood increased, and she improved considerably. She gained over two stones in weight, and she said that her mother hardly recognised her. She is better, but by no means well, as she has still some discharge from the stump. I do not know for how many years I must go on inoculating her, but her phagocytosis is as good as mine, and therefore, I take it, she will make a good resistance to tubercle in the future. This case was shown at the Dermatological Society of London.

Here is another curve. I forget to whom it refers. It was from staphylococcus inoculations. There is a considerable rise in the protective substances in the blood, and where that high level remains I am sure the case gets well. *Here* is the curve of another case of lupus that Dr. Graham Little sent to me. She had dactylitis, lupus of the nose and chin, and both hands and feet were affected. In other words, she had a very low resistance to lupus, and she took a long time in developing any protective substances. She is now much better than she was, and it seems to me that she has considerably improved, and I believe Dr. Graham Little thinks so too.

Here is the diagram of a case whose observations I have not continued, but he has been extremely successful. He was operated upon three times in St. Mary's; he had glands in the neck, open sores in his shoulder, suppurating wounds in his neck, and had had a piece taken out of the side of his head, leaving a big open sore. He has improved enormously under the inoculations. He complained when he came back that the wounds were still discharging. I made agglutinations, and found he had many staphylococci. I therefore think this originally tubercular lesion has been kept going by an invasion of staphylococci, and I propose to inoculate him against staphylococcus, to see if it will eliminate the suppuration from the wounds.

Dr. WALDO: In cases of furunculosis there is a popular idea—and I think the profession is inclined to endorse it—that meat-eaters, as a rule, are very much worse in furunculosis. Can Dr. Wright tell us whether the protective substance is lessened during a meat diet in these cases?

Dr. WRIGHT: I have not made experiments as to that, but the histories of the cases of furunculosis do not seem to point to meat-eating. One of the cases, which was very bad, says he takes hardly any meat at all. I do not think there is a very definite association between meat diet and staphylococcus. But I have not made any experiments on the point.

Dr. STAINER: Does Dr. Wright take his cultures of staphylococcus from the patients?

Dr. WRIGHT: Ordinarily it is too much trouble to take cultures from the patient and make every man a special vaccine. I had a medical student from

Edinburgh who was much concerned about his personal appearance. He had been treated with Röntgen rays, and had all his beard pulled out. The staphylococcus which I got from a furunculosis patient did not do him much good, but I made a vaccine from his own staphylococci, and he did extremely well. He went to Edinburgh happy. He came back six months afterwards with a relapse, but no definite pustulation. He had congestive patches about his face. I re-inoculated him with his own vaccine, and it went away. I have done that in obstinate cases when it has seemed to me that the patient has a special liability to a microbe which affects him more than others. I thought it was a case of acclimatisation of a microbe to his system, and in such cases I thought it would be better to use his own staphylococcus for the culture. But that is not the rule; most of the patients I have had have been done with other people's staphylococcus, as tubercle cases have been done with the human tubercle bacillus, though it never came from them. It would be unworkable in tuberculosis to make cultures from the patient's own tubercle bacilli.

Dr. PRINGLE: Here is the curve of one case which I would like to ask you about.

Dr. WRIGHT: That is a great departure from the ideal. It was a patient who was affected with tuberculosis of the kidney and bladder. She was having night-sweats, and they thought very badly of her in the way of prognosis. She was inoculated, and responded very well. I over-plied her with vaccine, and her protective substances came down, as you see, to this point, which was her original level; she had lost all she made. I tried to build her up, and I was partially successful in doing so. I left then for my summer holiday. I took her on again when I returned. I gave her 3 milligrammes, as Koch instructs you to ply people heavily. I got a negative phase, and lost what I had gained. I thought that loss was accidental, and I did it again, and I again brought her down with 3-milligramme inoculations. Then I let her alone until Christmas. When she came back after the Christmas holiday she was at a very much higher level. Then I started again with big doses, and she came down. She is still under observation, and she still has some frequency, having to get up once or twice in the night; but she is a different woman from what she was at the beginning, and I take it she has benefited. She has now always got some protective substance. I do not know whether we can take the agglutination curve as tested by that dose as quite satisfactory. She has, however, almost as much phagocytosis as myself and Captain Douglas.

Dr. PRINGLE: Is she better?

Dr. WRIGHT: I do not know whether she is the better for it, but she is clinically well. She was very, very ill, but she is almost obese now. She is out of hospital at present. The temperature is no guide to the dosage, because here I guided myself by the temperature, and we never had a rise above 99. Still, I used too much vaccine. The body weight seems to be a very good indication. I take it the temperature is only the effect of the last dose inoculated. I have found the temperature a very uncertain guide. There is much that is doubtful in this one.

Dr. RADCLIFFE-CROCKER: What is the longest period which has elapsed without a recurrence in case after treatment?

Dr. WRIGHT: I have not followed them, so I cannot give you any records of that. I daresay they have relapsed, but I do not know. This Edinburgh student

was the only man who came back. I saw him again; I have not seen anybody else again; they are all recent

Dr. WILFRID WARDE: Does Dr. Wright rely entirely on his vaccines, or does he carry out any external treatment in addition in cases of sycosis?

Dr. WRIGHT: I am innocent of external treatment.

Dr. WARDE: And it has not been applied by anybody else?

Dr. WRIGHT: No. I had a patient the other day whom Mr. Hutchinson sent me, who had been through the gamut of skin men for sycosis. It was sent on with a note: "This is very bad." He told him, "You may as well go and try, but it may not do you any good." I sent him back to Mr. Hutchinson to report himself. It seemed to me that he was cured; he had previously had most of the external treatments. Most of these people have had long periods of treatment with Röntgen rays and many forms of antiseptic, but they were not cured. I used inoculations only.

Mr. G. PERNET: In the case of Lupus vulgaris and single boils does Dr. Wright inject his vaccines in the back muscles, or does he inject the vaccines around the actual lesions? I ask that because at University College Hospital we tried Koch's new tuberculin for several cases, and certainly with very good results. In one case especially we obtained good results by injecting the new tuberculin round the actual lupus lesions, and not away from the lesions—for instance, in the back. Just injecting the tuberculin under the skin of the back is what is usually done, I believe. Again, Dr. Wright has said that he uses carbolic acid in the staphylococcus vaccine to do away with any possibility of a venturesome microbe which might have got in cultivating itself and leading to trouble. What strength of carbolic acid does Dr. Wright use? Because in boils, for instance, if you inject 1 in 30 of carbolic acid round a boil which is forming you can very often abort it. Not long ago I had a patient who absolutely refused to have any opening made into it, and I injected carbolic acid round it, although it was beginning to soften, and the whole thing aborted. Therefore that would be a source of fallacy if Dr. Wright uses carbolic acid of that strength. Another point is that at University College Hospital it is usual to attack boils by carbolic acid solutions, and certainly very good results have been obtained. I do not think the antiseptic method of treatment of skin diseases is absolutely futile, as Sabouraud has stated. I have not looked at the original paper, but I saw it at the head of Dr. Wright's article in the *Lancet* or the *British Medical Journal*. But I think Sabouraud is not to be relied upon, as far as that goes, because one gets good results from injecting carbolic acid round boils. Another point, and one which might be elucidated, is that after doing that with carbolic acid is it possible that the carbolic acid acts as a stimulus and leads to the formation of these substances which Dr. Wright has alluded to as opsonins?

Dr. WRIGHT: I never inoculate near the site of the boil; I go as far as possible from it, in the flank, and occasionally behind, in the back. As the vaccine contains only $\frac{1}{2}$ per cent. of carbolic and you only inject 1 c.c., or sometimes $\frac{1}{2}$ c.c. and further, when it is fresh I inoculate without the carbolic at all, I think you may take it the carbolic has nothing to do with it at all.

Dr. GALLOWAY: I would add my protest against the remarks which Dr. Wright has made in reference to the antiseptic treatment of boils, even when he supports himself by Sabouraud's authority. Dr. Sabouraud's researches are interesting and ingenious, and by them he has done much good in the

department of dermatology. But as a therapist I think his recommendation of sulphur as the best antiseptic for staphylococcus and for most of the other organisms can scarcely be regarded as the acme of perfection in antiseptic treatment. However, apart from that, I would criticise the remark of our Chairman. I think we have still got hold of the right end of the stick in the treatment of local staphylococcus infections by local applications. Nobody admires Dr. Wright's work in this matter more than I do, and I hope and trust we have got something which will help us in the treatment of staphylococcus infections by his vaccine method. There are many cases in which staphylococcus infection is so inveterate, perhaps not in the place itself, but on account of its extent, that we cannot pursue the staphylococcus quickly enough to catch it. Take as an example a severe case of acne, of staphylococcus infection, which Dr. Wright has taken as his type,—acne of the face, and perhaps the whole of the back. I think no facial infection of acne is severe enough to render it impossible to pursue the staphylococcus to its lair. If a case of facial acne is brought under close observation and treated, not once in ten days or once a week, but every day if necessary, these staphylococci will be got hold of and rooted out. Let me give an analogy. I know analogies are dangerous, and in the presence of such a keen logician as Dr. Wright they may be especially dangerous. But he will sympathise with me when I say I had a friend who was a great gardener, and his lawn got overrun with weeds; and recognising that the ordinary method of getting rid of weeds from his lawn was simply to pull them up, to weed out the lawn, and that that would probably take a very long time, he thought that a patent invention, which would have the effect of killing the weeds—advertised as such—would be the best way to treat the soil, and that perhaps it might make the soil bactericidal, so far as the weeds were concerned, or might even produce an opsonin in the soil. It was an experiment, and I awaited the result with interest. Some time afterwards I went back to my friend and found that instead of the lawn there were numerous yellow patches, and that the greater part of it consisted of such patches, the result of the use of this material. I still think that the proper way of dealing with a case of pus-infection is by rooting out the staphylococci and getting rid of them, and disinfecting the place. And if, in addition, we can get an extra advantage by rendering the soil not a good one, either by improving the bactericidal properties of the blood in certain diseases, or by inciting the soil to manufacture these opsonins in other cases, I think we shall have made a great gain. In reference to the word "opsonins," I must thank Dr. Wright for bringing this matter to a conclusion. When the word first appeared I hunted in many dictionaries; I tried to find the derivation in Greek and in Latin, and finally came across the verb which he mentions. I almost refused to believe that Dr. Wright had ventured so near a pun in the manufacture of a word.

There are other points, but I will not stop to mention them now. There will be no one more willing than Dr. Wright to come and solve our doubts, especially with reference to such questions as whether an actual development of phagocytosis in the blood can be looked upon really as a direct criterion of the protection of the individual against infection. Such points as these are, perhaps, rather assumed, and perhaps rightly assumed, by Dr. Wright. But probably they will require, for general acceptance, a little more support from the point of view of experimental work. The matter is of such interest that I should have

liked to take up some other points, but we are, I know, waiting to see Dr. Wright's demonstration.

Dr. WHITFIELD: I must say that I regard Dr. Wright's communication, if it is borne out by further experience, of very great value to us. I think, certainly, that Sabouraud's statement that antiseptics have done nothing for the skin is a little misleading. I think where conditions are superficial and we can get at them, antiseptics finish them up; there is no doubt of that. I think Sabouraud's dictum comes from this method of arguing: Here is a disease which Sabouraud says is due to an organism. He applies antiseptics, but the disease does not stop. But everybody does not admit the disease was due to an organism. His great statement that in oily seborrhoea of the scalp it is impossible to stop the condition by using antiseptics is scarcely to be wondered at, for I do not admit that it is due to a bacillus. With regard to the treatment of boils, there is one very great value in Dr. Wright's treatment, provided the relapses are not too frequent. It is easy to see that with a local boil we may treat it and stamp out the staphylococcus by injecting carbolic acid round it. But what are you going to do if a man comes with a crop of boils in his neck? My usual treatment in such a case is not to attempt to stamp out any of them, but to cover the whole area and about six inches beyond with an ointment which does not kill the staphylococci there, but prevents any future ones growing in the hair follicles, and makes the patient a bad medium for disinfectants. By the experiments of Mr. Cheate it has been found that in the healing of an abscess, however carefully it is treated, one can cultivate from the wall, though apparently healthy, organisms which are as virulent as those which produce marked sepsis, and I think no one has ever produced an aseptic wound from a septic one. I think all we can do is to convert the surface in question into unfavourable ground. If a man comes and says that last Tuesday he had a boil on the back of his neck, and now has one in his knee, are we going to envelop that man in an inhibitory medium? I think, unless one can find some defective health—which, I think, is almost invariably present—one can only pursue the lesions with lagging step, and as soon as the boil begins to develop, surround it with an antiseptic and trust to luck that in time it will be stopped by the skin being rendered an unfavourable medium.

One point which arises in my mind is, that in most of these cases there is a very definite acquired low resistance, and Dr. Wright's production of an opsonin is very likely to be a purely temporary expedient, although one of great value, unless one can get at that error in the patient's life which is causing the destruction of his original protective secretions. It is all very well to say, Here is a man who was healthy up to twenty-three, but who now develops boils. If you inject staphylococcus vaccine, what proof have you, after having increased his protective substance, that the same factor is not at work, and that the protective substance will not run down again? In the only two cases in which Dr. Wright had a further history that occurred, one was the Edinburgh student and the other the man who was shown here, who became alcoholic. So it is possible it was a temporary expedient; and I think it is really necessary to do, what I believe is essential in all these affairs—to go into every fraction of the patient's life and find out where the error is that causes the leakage or destruction of his protective substance.

Dr. MARTIN: I have not the honour of being a Member of this Society, but may I crave your indulgence while I say a few words? Those of us who have

had the privilege of seeing these experiments and the methods which have been developed by Messrs. Wright and Douglas, have the greatest admiration for them and for their attempt to produce a quantitative method in this matter. But those of us who know Dr. Wright have not the greatest confidence in him as a clinician, and I would like to make a suggestion. It is, that this Society should undertake to watch over a series of cases chosen by expert dermatologists, to be treated by Dr. Wright's method, and for the Society at some future date to give its opinion—that the Society should appoint a Committee or something of that sort. Clinicians will not understand altogether, and they will not believe, graphic records of bactericidal power, and agglutination, and opsonic action. Various people who are not clinicians will not believe them, either; and the scientific people do not have the opportunity of judging for themselves, except from reading of a cure of sycosis, of what value it is in staphylococcus infections. If you could arrange to bring the forces of the Society, and Dr. Wright would make some experiments under your Committee, we should get at the truth of the matter.

Dr. COLCOTT FOX: All the speakers seem to take it for granted that the pustulation of acne vulgaris is caused by the staphylococcus aureus; but there is absolutely no proof of that. And we know that Sabouraud believes it is due to the grey staphylococcus, and that Unna believes it is due to a special bacillus.

Dr. BULLOCH: With regard to Dr. Wright's experiments, I think I am perhaps the only one who has confirmed the work of Wright and Douglas, but in a somewhat different way, in so far as my experiments have been made upon animals. There is no doubt that the opsonic effect is a widely-spread phenomenon, which may be obtained in all vertebrate animals. In conjunction with Mr. Atkin of the London Hospital I have confirmed all the original observations of Dr. Wright. So there is no doubt that these opsonins are very real bodies in the serum. There is no doubt, also, that the phagocytosis method devised by Wright and Douglas is a very important advance in this question. It is diametrically opposed to the teaching which has been brought forward by the French school for years. It has been held by Metchnikoff that the essential structure in the process is the leucocyte; whereas Dr. Wright says the leucocyte is a secondary factor; that the essential thing is the presence of an opsonin in the serum, and that that is the agglutinine or antitoxine. And we have here a very great type of immunity produced. Bacteria attack the body, and in a variety of ways the body reacts—it defends itself in a variety of ways. With regard to Dr. Wright's experiments, they can be easily confirmed by anyone who will take the slightest trouble. The results work out extraordinarily accurately. At present I have treated only two patients with acne, cases sent me by Dr. Sequeira, which I understood were regarded as practically incurable. They were two young men. I have only injected one dose, but so far the curve has followed the course Dr. Wright mentioned. Comparing their blood with my own, there has been the usual negative phase, and they have almost reached the height of my own blood, which I call normal with regard to staphylococcus. With regard to Dr. Colcott Fox's remark, it does not matter which staphylococcus is acting, though no one has converted the staphylococcus aureus into the citreus or albus; the idea is that they are the same; there is no difference in the opsonins created by them.

Dr. COLCOTT FOX: Dr. Sabouraud thinks there is.

Dr. WHITFIELD: It is the micrococcus which he says is identical with the micrococcus ureæ.

Dr. RADCLIFFE-CROCKER: I am sure, gentlemen, we are extremely indebted to Dr. Wright for all he has done, and for the opportunity of listening to a very interesting discussion. His method is an important adjuvant, and I don't suppose he expects us to give up our local antiseptic treatment because of this treatment. The fact is, it will be an important help to us even while we continue our present methods. I must say I do not think we are very unsuccessful in treating either acne vulgaris or furunculosis at present. I am always rather glad to see patients with these conditions come into my consulting-room, because I feel pretty confident I can do them a great deal of good, and even effect cures. But I shall be glad to have the further assistance that Dr. Wright's method can give me. I do not suppose he would expect us not to use local antiseptics, though it would be incompatible with his experiments. Of course when you are using a scientific method it must be made as simple as possible, so as not to complicate matters, and so that we shall have no doubts as to which method is producing the results.

Before we separate, I propose a most hearty vote of thanks to Dr. Wright for his address.

The vote was carried by acclamation.

Dr. WRIGHT: I thank you, gentlemen. With regard to Dr. Martin's suggestion, I shall be glad to try cases and return them to those who sent them. I cannot ask the Society to trouble about investigating them, but I am anxious to have any cases which are regarded as hopeless.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

A MEETING of this Society was held on Wednesday, June 22nd, Dr. WALDO in the chair.

The following cases were exhibited:

Dr. GRAHAM LITTLE showed—(1) a case of juvenile *flat warts* in a little Jewish girl aged 8 years. These were distributed over the forehead at the junction of the hair of the scalp and the skin and were extremely numerous, being well over a hundred in number; they were of an average size of one millimetre, some being larger and some smaller; they were very closely grouped and of a light buff colour; they had appeared spontaneously about two months previously, and had given rise to no subjective symptoms. A few small and scattered flat warts were found on the cheeks, near the mouth, but none on the hands. The position of these lesions, so often found at the margin of the hair and scalp, suggested a possible

seborrhoeic origin, and their eruption in a rapidly successive manner with a disappearance often equally spontaneous and sudden, was strongly suggestive of an infective process, but instances of actual transmission were rarely observed.

(2) A case of *grouped comedones* on the cheeks and forehead of a male infant, aged twenty months. The lesions were closely aggregated on the salient parts of the cheeks and on the forehead, near the space between the eyebrows. The disease had commenced ten or twelve months previously, and without any history of irritating applications, which were not seldom noted as an antecedent to the similar eruptions observed on the chest of young children. The cause of this curious affection was still obscure; it had been ascribed, like so many other diseases of the skin, to seborrhœa. Its relation to true acne has been debated; Radcliffe-Crocker contends that it has no connection with that disease, and perhaps the commonest explanation is that the lesions are due to local irritants. One point that such an explanation does not touch is their undoubted preponderance in male subjects. The cases recorded by Crocker, Julius Caesar, and Colcott Fox showed a nearly uniform preponderance of three to one in favour of the male sex. Dr. Stainer had seen a case in a boy in whom the distribution seemed to indicate that the incidence of the eruption was determined by the irritation of a cap, the part of the forehead covered by the peak of this being especially involved.

(3) A case of what was probably *acquired syphilis in an infant* aged 14 months. The eruption had appeared for the first time one month ago as a very typical papulo-squamous syphilide on the thighs and feet and face. Later on she developed very numerous mucous tubercles on the thighs, in the fold of the groin, in the sulcus on each side of the vulva, and in the ano-perineal groove. The appearance in these parts was exactly like that of acquired syphilis. The site of the primary lesion in the child was not ascertainable, and the diagnosis of acquired as against congenital syphilis rested on the late development of the typical secondary rash and the extensive condylomatous formation immediately succeeding the secondary eruption. There was no history of syphilis in either parent, but careful examination of the mother showed a faint macular eruption on the neck, with the fenestrated pigmentation which is seen frequently in this part as

the outcome of syphilis. With this exception she had no symptom of syphilis. There was no scar on the genitals, and no history of a previous sore. The tonsils presented a rather ragged appearance, and there was glandular enlargement in the groin and in the cervical triangles. She had an eczematous eruption on the front of the legs and in the popliteal spaces.

The PRESIDENT expressed the view that the late onset was in favour of the diagnosis of acquired syphilis. This seemed the general opinion of the meeting.

Dr. WARDE was not satisfied that the case was not congenital.

(4) A case of *Lupus erythematosus* in a woman aged 50, who had had the disease for several years. She had typical, slightly scaly patches on the nose, the scalp at the junction of the forehead and hair, and in the conchæ of both ears. There were no lesions elsewhere on the scalp. She had not albuminuria, and there was no purulent or other discharge from any mucous orifice. The disease was of the seborrhoic type, and it was interesting to note the incidence in the ears, favourite positions for seborrhoea. She had been treated with local applications of salicylic-collodion, but without any marked success so far.

Dr. STOWERS mentioned a similar case where superficial scarification proved curative, and a second case where, after half the diseased surface had been scarified, the remainder healed spontaneously.

(5) The case of *Fordyce's disease* shown to the Society in February, 1904, and reported in the *British Journal of Dermatology* (vol. xvi, p. 140; in the issue of the Journal there appears a clinical note by Dr. J. M. H. MacLeod of a similar case). The patient had had Lichen planus, and still showed some pigmentation and a few isolated patches of active disease; but the Lichen planus was obviously retrogressive, whereas the condition of the mucous membrane of the mouth, for which she was shown, was increasing in severity and extent; the upper lip on its buccal surface was now affected in a similar manner to the mucous membrane of the cheek, as described in the previous report of the patient. When she was last shown several members had considered that the existence of Lichen planus elsewhere was sufficient to account for the appearance on the mucous membrane of the mouth. The case was now brought forward again in response to the invitation of the President on that occasion, who had stated his

opinion to be doubtful because of the absence of the affection on the lip, a part where Fordyce's disease was present prominently.

Dr. V. H. RUTHERFORD showed a bricklayer with late *squamous syphilide* in the palm of left hand and a clean circular perforation of the soft palate about the size of a threepenny-piece, which the patient accounted for by the stem of a clay pipe being driven against the palate by a blow against the bowl of the pipe. The ulcer, however, only appeared in the palate several months after the accident. The original disease was contracted fifteen years ago, the perforation nine years ago, and the palmar condition a year ago.

Dr. SAVILL sent a case of *eruption on the hand*. The patient, a woman, aged 26, had been shown to members of the Society some two or three months previously. The opinions of the diagnosis were divided on that occasion between *Lupus vulgaris*, which carried the majority, *Lupus erythematosus*, and vesicular erythema.

The lesion was a thick erythematous patch, with a faint attempt at vesiculation and superficial scarring.

The case had been treated with quinine internally, calamine and zinc ointment, and calamine lotion externally. There is now a very marked improvement, and Dr. Savill thought the last-named diagnosis was probably the correct one.

Drs. GRAHAM LITTLE and STAINER did not consider that a vesiculating erythema would have lasted four months, and thought the condition one of *Lupus erythematosus*, which was also the opinion of the majority of Members.

Dr. ALFRED EDDOWES showed three cases of *Lupus vulgaris* to illustrate the different stages in the treatment of lupus by scraping and the cautery. The first case was that of a girl aged 14 who had had *Lupus vulgaris* of her right cheek for twelve years. At the time when she came under Dr. Eddowes' care, a fortnight before, the disease involved the whole of the cheek, a portion of the upper lip and chin, and there were two patches, each about the size of a shilling, on the same side of the neck. There was also some infection of the cornea, with conjunctivitis and photophobia. Ten days before exhibiting this patient all the skin-lesions had been thoroughly scraped and cauterised, and to-day granulations have already replaced the charred

tissue, and the cicatrisation is covered by a smooth, horny layer for half an inch on all sides of the healing wound.

The second case was that of a nurse who had been operated upon six weeks before for a patch of disease $2\frac{1}{2}$ inches by 2 inches, involving practically the whole centre of one cheek. The cicatrix was flesh-coloured, soft, and promised to be but a very slight permanent disfigurement.

The third case was that of a boy with an excellent scar about the size of one's palm, in front of the shoulder-joint and axilla. A large lupus patch had been destroyed thoroughly, and dressed by Dr. Eddowes' favourite method, with the result that the scar was perfectly free from keloid or contraction, and was as freely movable and elastic as the normal skin, and, notwithstanding its position, it in no way interfered with the movements of the arm. After an interval of nearly three years, the scar itself had remained free from relapse, but just outside its edge and near the axilla a new focus of lupus had formed, and lately, through neglect by the boy's guardians, it had begun to involve the lower edge of the scar in two radiating fine lines. This infected portion, of the size of a shilling only, had been excised and sections were placed on the table under the microscope showing well how the disease wedged its way from the true skin into the scar well below the scar epithelium. This patient's friends had promised that he should be brought for inspection at six months' time after the first operation, but they were so pleased with the appearance of things that they did not think it necessary to come.

All the cases had existed for ten to twelve years before Dr. Eddowes saw them and had undergone various kinds of treatment. The first case above mentioned, the most severe and extensive, had, for instance, been under X-ray treatment twice a week for fifteen months, during which time it had become more acute and had spread.

Dr. STOWERS considered it desirable that the greatest discretion should be exercised in the use of the word "cure" in relation to all forms of tuberculosis, in spite of the fact that we possess better methods of treatment than formerly. He thought Dr. Eddowes' expression "radical cure" was quite inappropriate to the three cases he had exhibited, not only because the healing after his operations was incomplete, but also for the reason that a long observation of lupus had proved that, even after years of interval, new manifestations not infrequently appeared in or around the original site as the result of a slow subcutaneous extension through the lymphatics or vessels. Dr. Stowers felt confident, however, that in some cases thorough scraping, with proper antiseptic precautions, followed

by judicious use of the cautery or solid nitrate of silver, was a more efficient treatment than the Finsen method, and recommended excision as the best plan of all in the earliest stage, if permission could be obtained.

The PRESIDENT agreed with Dr. Stowers' remarks.

In reply to Dr. Stowers and the President's remarks, Dr. EDDOWES said he used as low a temperature cautery as possible. A very hot cautery slipped, did not char properly, and did not control hæmorrhage so well. He never scraped alone, but always cauterised in some way afterwards. To scrape alone was to invite further infection, or at least to leave bacilli in the tough unscrapable tissue. He only scraped to save time and get a clue as to any burrowing. After burning he dressed with strong solution of bicarbonate of soda for one or two days at most, and then used boric acid ointment and a thick pad of cotton wadding for the protection of the young granulations.

He thought the term "radical cure" was appropriate, as, if done thoroughly, the disease could not return on the part operated upon. When properly looked after the scar was as good as, if not often better than, a large graft, which latter so often contracted and became lumpy. It should be clearly understood that he did not show these patients in order to convince the Society that he had cured cases—that he had proved already by other cases shown to this and other societies; these cases were presented merely to illustrate the various *stages* after operation.

CURRENT LITERATURE.

HYPERTROPHY AND MULTIPLE CYSTADENOMA OF THE SWEAT-CANALS. P. THIMM. (*Archiv f. Dermat. u. Syph.*, March, 1904, p. 3.)

WITH regard to the tumours of the sweat-apparatus there is still considerable confusion owing to a want of care in distinguishing between simple hypertrophy of the glands (such as may occur in association with any hyperidrotic condition), carcinoma of these organs, and true hyperplasias of the secreting epithelium of the gland or its ducts, forming adenomata. Unna differentiated between a hyperplasia "resembling in structure the coil-gland, but exceeding it in architecture," arising from the coil (spiradenoma), and one which took its origin from the duct (syringadenoma). Petersen defined sweat-adenomata as tumours which microscopically were made up of cells the arrangement and form of which were similar to that of sweat-gland cells, in which a lumen must be present like that of the coil or duct, and the cells must be limited by a *membrana propria*. Around this tumour mass there should be no marked inflammatory cellular infiltration,

and no metastatic growths should be present, thus differentiating it from carcinoma. Török, who carefully went over the literature of the subject, concluded that only two of the many cases which had been published as sweat-adenomata could be regarded as such, and these were the cases reported by Thierfelder and Petersen. Both these cases are fully described in Unna's *Histopathology* (Walker's translation, p. 809).

In this contribution Thimm describes in detail another case of "multiple spiradenoma" which occurred in a man aged 35, and in whom the lesions had been first noticed as small nodules in the skin when he was seventeen years of age. When he presented himself for examination about 150 small nodules were counted. These varied in size from a barley-seed up to a pea. They differed in consistence, the smaller ones being hard, while the large ones were softer, and suggested small lipomata. In colour the younger lesions were dark grey, and they were translucent, and the larger and older ones were either reddish from the presence of telangiectases over them or were yellow in tinge. The lesions were present chiefly at the lower end of the sternum, but there were also a number on the neck, back, fold of the axillæ, and flexure of the elbows. A very good photograph and a coloured drawing of the large group of lesions situated in the sternal region illustrates the article. One of the lesions was excised and examined microscopically. It showed the presence of a large cyst in the corium in the situation of the sweat-coils. There was a hyperplasia of the sweat-coils and a widening of the sweat-canals in the neighbourhood. The sections showed a cystadenoma connected with a sweat-duct. From the examination of a number of sections the writer was able to trace the evolution from normal to hypertrophic coil-glands, then to widening of the canal and to the formation of large convolutions, next to a hyperplasia with new glands forming, and finally to the formation of cystadenoma and epithelial cysts.

J. M. H. M.

PSEUDO-XANTHOMA ELASTICUM. WERTHER. (*Archiv f. Dermat. u. Syph.*, March, 1904, p. 23.)

WERTHER describes here the clinical and histological features of a case of pseudo-xanthoma elasticum which occurred in a woman of twenty-eight years of age. She was the youngest of six sisters, and two of the others suffered from the same affection. It began in all three about their sixteenth year, and affected the same regions, namely, the neck, axillæ, and flexures of the elbows. In Werther's patient the neck was the part chiefly involved, and the diseased skin consisted of flat bands running together to form a network, and raised 2 or 3 millimetres above the level of the surrounding skin. The surface of these bands was smooth, and they had a bluish-white tinge like dentine. They were rather soft in consistence, and faded gradually in the neighbouring skin. In the axillæ and the flexures of the elbows the lesions were small and isolated, some being no larger than a lentil. The mucosa was not involved. There were no subjective symptoms associated with the presence of the lesions. A piece of diseased skin was removed from the neck for microscopical examination. This showed the presence of a tumour mass in the pars reticularis of the corium. The overlying epidermis appeared to be normal, and the only definite change detected in the papillary layer of the corium was the presence of a number of pigment-cells extending

from the blood-vessels, and also of pigment-granules in the lymphatic spaces. The diseased mass in the pars reticularis showed the characteristic change in the elastic fibres, which had become irregularly swollen and tended to break up, stained less brilliantly with acid orcein than ordinarily, and had undergone towards the centre a degeneration into elacin. The collagen-bundles, on the other hand, showed no change either in form or chemical composition. Between the bundles there were numerous connective-tissue cells, but no giant-cells. From the fact that the disease occurred in three members of a family, the writer regards it as a congenital dystrophy of the skin, which appears about puberty.

J. M. H. M.

CONTRIBUTION ON PAGET'S DISEASE. J. FABRY AND H. TRAUTMANN. (*Archiv f. Dermat. u. Syph.*, March, 1904, p. 37.)

IN this joint-paper the ætiology and pathology of Paget's disease are discussed by Fabry and the bacteriology by Trautmann. The contribution is based on a case of Paget's disease which occurred in Fabry's clinic at Dortmund. The patient was an elderly woman, and the disease affected her left breast. It began when she was thirty-six years of age, about the nipple, and as it evolved it gradually presented the characteristics of this malady. After thirty years malignant changes supervened, and the whole breast as well as the glands in the left axillæ became carcinomatous, and in consequence the breast had to be amputated and the diseased glands excised. A microscopical examination was made of the tissue from the breast and glands, and a bacteriological examination was carried out. After discussing in considerable detail the literature on the subject and the special features of this case, Fabry concludes that Paget's disease is an entity which differs not only from chronic eczema but also from ordinary epithelioma. He considers that the chronic changes which occur in the epidermis and the upper layers of the corium form a suitable soil for malignant growth to take place. The microscopical characters of the affected skin were similar to those which have been described repeatedly. The chief point of interest in connection with the case was that they isolated from the diseased skin a vegetable fungus of the nature of a yeast. This they did not consider to be a secondary contamination, but to be the cause of the disease. It was present not only in the skin of the breast but also in the axillary glands. The organism was in the form of a single cell or a cluster of cells. It was round or oval in shape, with a hyaline or granular centre, and varied in size from that of a red blood-corpuscle or even a leucocyte to half their size. The fungus readily grew on the ordinary cultivation media, and it was pathogenic to white mice. A guinea-pig in which 1 cm. of a pure culture was injected into the nipple died ten days later of enteritis, but presented a tumour at the site of inoculation which, microscopically, was a connective-tissue growth with a dense, small-celled infiltration, and in it the fungus was found. The writer suggests a possible relationship between Paget's disease and Blastomycetic dermatitis.

(The fungus, which was so readily isolated in this case by the ordinary methods, could scarcely have been overlooked in the examination of previous cases of the disease had it been present, and it will require further demonstration before it can be established as the pathogenic agent.)

J. M. H. M.

CONTRIBUTION TO TUBERCULOSIS OF THE SKIN. V. KLINGMÜLLER. (*Archiv f. Dermat. u. Syph.*, March, 1904, p. 167.) One plate.

FOR some time the writer of this paper has been occupied with the study of the various types of tubercular manifestations of the skin at Professor Neisser's clinic at Breslau, and this contribution contains a *résumé* of his observations. As this paper is the result of much patient research it merits a careful study by those interested in the subject. It extends to about forty pages, and many of these are in small type, consequently it will only be possible here to touch on a few of the main conclusions which the writer has arrived at. The skin-affection to which the writer specially refers here is Lichen scrofulosorum. From sixteen cases of this disease which were recognised clinically as such, seventeen pieces of tissue were excised and examined microscopically; twenty-seven guinea-pigs were inoculated (intra-peritoneal) with pieces of tissue removed from nine patients, the pieces of tissue inoculated being about 1 cm. long and $\frac{1}{2}$ to 1 cm. broad; and 700 microscopical preparations were stained and examined for Tubercle bacilli, but with negative results. The histological examination showed that in all the cases the diseased process was localised in the superficial layers of the skin, the papillary and sub-papillary layers being chiefly involved as well as the neighbourhood of the hair-follicles and sweat-glands, the deeper portions of the skin being rarely affected. Two different types of histological changes were found in lesions which appeared clinically to be identical, namely (a) a type in which foci of small round cells were present around the blood-vessels and follicles, where the collagen and elastin were slightly, if at all, destroyed, and where the only changes noticeable in the epidermis were the presence of a few lymphocytes between the prickle-cells and a mild degree of parakeratosis (the majority of cases conformed to this type), and (b) a rarer type in which the histological architecture was similar to that found in tuberculosis, and in which variously sized foci made up of round cells, epithelioid cells and giant-cells were present, and the fibrous element had to a large extent degenerated. The inoculation experiments, like the search for Tubercle bacilli in the sections, were unsuccessful. The writer goes on to make a number of interesting clinical observations in connection with the disease. He refers to the fact that he has never seen a case of Lichen scrofulosorum in which other signs of tuberculosis were not present in the patient, and that these tubercular manifestations were of the chronic type, such as scrofuloderma, tubercular glands, cold abscesses, and Lupus vulgaris, and not of a rapid and acute nature like miliary tuberculosis. He noted also that injections of the old tuberculin might cause an eruption of lesions similar to those of Lichen scrofulosorum. In two cases, after tuberculin injections, foci of Lichen scrofulosorum appeared around scrofulous ulcerations, which persisted for several days after the general reaction had disappeared and the local reaction had subsided. A number of cases of Lupus erythematosus, among others, were similarly injected, but no tuberculin reaction was obtained, and Lichen scrofulosorum did not develop. The lesions which were called forth by the tuberculin injections in scrofulous patients were more acute, redder, and more cedematous than those of ordinary Lichen scrofulosorum.

In another case, one of Lupus vulgaris in a young woman aged 19, after injections of tuberculin, there was a local reaction of the lupus, and not only did

Lichen scrofulosorum develop, but a peculiar scaly eczematous eruption appeared on the leg, which the writer regarded as similar to the Eczema scrofulosorum of Boeck. The scaly patch was brownish red in colour, slightly infiltrated, and faded gradually into the surrounding skin; and a microscopical examination revealed the presence of what appeared to be tubercular foci in the subcutaneous tissue, but no T. bacilli were found, and inoculation experiments were negative. The condition somewhat suggested Erythema induratum.

The writer refers to a further case in which Lichen scrofulosorum co-existed with a true tuberculide in a scrofulous child of four years of age. The tuberculide was of the acneiform type according to the description, and was situated chiefly about the forehead and back. After injections of the old tuberculin were made the Lichen scrofulosorum became more noticeable. In another case of "folliclis" affecting the elbow, arm, finger, foot, and left knee the injections caused a local reaction in a few of the lesions, and brought out an eruption of Lichen scrofulosorum on the trunk.

The writer then discusses at considerable length the arguments for and against the recognition of Lichen scrofulosorum as a form of Tuberculosis cutis. The chief positive arguments are the facts that it comes out only in individuals in whom other signs of tuberculosis are present; it frequently presents a histological architecture similar to that of Tuberculosis cutis; Jacobi, Wolff, and Pellizzari have detected Tubercle bacilli in the lesions; it reacts locally to injections of tuberculin; tuberculin injections may cause it to develop. Against this view are the counter-statements that in certain cases no other signs of tuberculosis can be made out; the histology may not be typical of tuberculosis; many careful observers, such as Lukasiewicz, Sack, Neisser, Hallopeau, Darier, as well as the writer, have failed to find Tubercle bacilli after a prolonged search for them; inoculations and experiments in animals are almost invariably unsuccessful; and the lesions have a tendency to heal spontaneously.

The writer of this paper strongly supports the view that it is tubercular, but regards it as a manifestation which does not result from the local action of Tubercle bacilli, but from their toxins. Where it is produced by injections of tuberculin he considers that it is caused by the combined action of tubercular toxins from bacilli already present in the body *plus* that of the injected tuberculin.

J. M. H. M.

A CASE OF LUPUS NODULARIS OF HÆMATOGENOUS ORIGIN.

WOLTERS. (*Archiv f. Dermat. u. Syph.*, March, 1904, p. 83.) Four plates.

THE writer of this paper reports in it a detailed microscopical examination of a case of Lupus nodularis. The patient, a healthy man aged 32, had a patch of lupus about the size of a mark-piece on the right side of the nose. It had been noticed for two years. It was neither ulcerated nor scaly, and the surface was smooth. It was soft in consistence, bluish red to brownish in tinge, raised about half a centimetre above the level of the surrounding skin, but gradually fading into it, and dotted over with small brown nodules. The patch was excised, and the wound was covered with a graft and healed satisfactorily. The tissue was carefully prepared for microscopical examination, and a large number of serial sections of it were made. The special

feature that was noted in the preparations was the presence of foci of granulation tissue in the lumina of the veins of medium size of the subcutis. These foci consisted of epithelioid cells and lymphocytes. At first they were internal to the elastic lamina of the vein, but they gradually increased till they ruptured the elastic layer and burst through the walls of the vessel into the surrounding connective tissue. The whole process of extension was observed in the serial sections. Isolated foci of cellular infiltrations in the corium showed the presence of giant-cells and other features of a tubercular architecture.

The writer considered the case to be one of lupus which had spread from the blood-vessels, the Tubercle bacilli having reached the veins from some infected tubercular gland.

J. M. H. M.

ON THE TUBERCULAR NATURE OF ANGIO-KERATOMA AND ON THE TUBERCULIDES. By L. PAUTRIER. (*Archiv f. Dermat. u. Syph.*, March, 1904, p. 145.)

RECENTLY the number of affections of the skin included by French dermatologists under the heading of "Tuberculides" (Darier) has been steadily increasing, and one of the latest additions to this group is the angio-keratoma of Mibelli. Leredde first suggested the possible connection between angio-keratomata and tuberculosis in a paper which he wrote with Milian in 1898 (*Ann. de Dermat. et de Syph.*, December, 1898). In the present contribution Pautrier supports Leredde's theory. He begins by discussing the subject of the tubercular skin affections in general. He divides these into three classes, namely:—(1) the *true tubercular affections* of the skin, which result from the reaction of the skin to Koch's Tubercle bacilli, and in which the bacilli can be detected and inoculation experiments give positive results: in this group he places Scrofuloderma, Tuberculosis cutis propria, Lupus vulgaris, Tuberculosis verrucosa cutis, Post-mortem warts, Lichen scrofulosorum, and possibly Acne cachecticorum; (2) the *tuberculides* (Darier), *toxi-tuberculides* (Hallopeau), or the "*Angiodermides tuberculosae*" (Leredde), in which Tubercle bacilli have not been detected, inoculation experiments have given negative results, and injections of tuberculin have not been followed by reactions constantly, but in which the lesions closely resemble tubercular lesions, and the histological appearances slightly suggest tuberculosis; in this group he includes Lupus erythematosus, Erythema induratum, Papulonecrotic tuberculides (Acnitis, Folliclis), Angio-keratoma, and possibly Pityriasis rubra (Hebra) and Eczema scrofulosorum (Boeck); and (3) an intermediate group of affections in which Tubercle bacilli are found in exceptional cases, positive results are occasionally obtained in inoculation experiments on animals, and the histological architecture is similar to that of tubercular lesions; under this heading he relegates Lupus erythemato-tuberculosis, certain forms of Erythema induratum (Thibierge and Ravaut), certain forms of Acnitis and Folliclis, certain forms of Lupus pernio (Gastou), and Lupus disseminatus (Darier). The writer discusses at considerable length the arguments for and against the inclusion of angio-keratomata in the group of the tuberculides. The arguments in favour of this classification he divides into two sets, namely the histological and the clinical arguments.

With regard to the former, he points out that the essential microscopical

change in angio-keratoma occurs in the blood-vessels where a peri-vascular infiltration is present which has a tendency to go on to a necrosis. The veins are affected in a more marked way than the arteries, and the changes which occur in them are similar to those which Philipppson and others have described in the nodular tuberculides, on account of which he named that type of lesion "Phlebitis nodularis necrotisans." The chief clinical arguments put forward are the co-existence of angio-keratomata with definite tubercular signs in other situations, and the co-existence of the affection with certain recognised tuberculides. Leredde and Milian describe a case in which typical angio-keratomata were present on the toes and inner border of the foot, and the patient suffered at the same time from scrofulous submaxillary glands. In another case referred to by Leredde and Haury the disease co-existed with tuberculous glands and the lungs were also affected. The writer of this paper also recorded a case of angio-keratoma with Leredde, in which the hands and fingers were affected. The patient was a woman aged 22 years, whose brother and sister had died of phthisis, and in whom the hands were asphyxiated and the nose had the condition known as Lupus pernio.

(On account of these slight histological resemblances, which appear to the abstractor to be too indefinite to found conclusions upon, and the clinical associations which have been mentioned, the writer bases his view of the "tubercular nature of angio-keratoma." If further evidence than the above is not essential for the placing of an affection in the clinical group of the tuberculides a number of other forms of dermatitis might reasonably be included in the list.)

J. M. H. M.

ON A PECULIAR LICHENOID ERUPTION. By WALTHER PICK.
(*Archiv f. Dermat. u. Syph.*, April, 1904, p. 411.) One plate.

THE writer describes in this contribution an anomalous case, a prototype of which he was unable to find after carefully searching the literature. The patient was a well-built man aged 37 years, who was admitted into hospital at Prague on account of mitral stenosis and incompetence and bronchitis. Two months before this he had noticed an eruption on his body which had appeared first on the lower extremities, and gradually spread from there on to the thighs and trunk. The eruption on admission was distributed over both sides of the chest, on the abdomen, back, and thighs. It was most profuse on the thighs. It consisted of numerous discrete follicular lesions about the size of hemp-seed, brownish-red in colour and smooth on the surface, or covered by thin adherent silvery scales. In the centre of the lesions there was the depression formed by the opening of the follicle. On scratching them they bled readily in a diffuse manner, and not in a punctate fashion, as in psoriasis. The recent lesions were definitely indurated, while on the back and legs there were a number of lesions which had involuted and been replaced by more or less circular, pigmented, depressed scars. The patient remained in hospital for two months, and various forms of treatment were prescribed, both local and general, but with no decided benefit. Individual lesions disappeared and left scars, but new lesions kept coming out. Anti-syphilitic treatment was tried thoroughly, but with no effect on the eruption, and a couple of injections of tuberculin, though they were followed by slight general reaction, caused no local reaction of the lesions. One of the lesions was excised

and examined microscopically, and a coloured illustration of the appearances is given. Around a dilated pilo-sebaceous follicle there is a mass of infiltration in the corium, which is made up of round cells, giant-cells, and epithelioid cells. The infiltrated area appears to be almost avascular, and the fibrous elements have to a large extent disappeared. The overlying epidermis is œdematous, and gives evidence of parakeratosis. In short, the lesion histologically suggests a perifollicular lupus nodule. About one hundred sections were stained and examined for Tubercle bacilli, but with negative results. The writer discusses the differential diagnosis of the case at considerable length. At first sight the exanthem somewhat suggested to him the "Psoriasiform and Lichenoid Exanthem" of Jadassohn and Juliusberg, but a more careful examination of the case and its histology put that possibility out of court. The failure of the eruption to react to the syphilitic therapeutic test showed that it was not a syphilide, and the writer was thrown back on Tuberculosis cutis and the tuberculides to furnish a diagnosis. As it did not react locally to tuberculin (the kind of tuberculin is not mentioned), and the general reaction was feeble, he thought that it was not a form of Tuberculosis cutis. He considered that it had a closer analogy with the group of the tuberculides, and was connected with the cachectic state of the patient induced by his cardiac lesion.

J. M. H. M.

ON A SYPHILITIC PRIMARY LESION OF THE OCULAR CONJUNCTIVA. GUTZEIT. (*Archiv f. Dermat. u. Syph.*, April, 1904, p. 349.)
One plate.

ABOUT fourteen days before the patient, a young man aged about 19 years, came under the observation of the writer of this paper, he observed a red spot on the lower part of his left eyeball, which was soon followed by a reddening and swelling of the whole bulb. This was associated with a blurring of the sight of that eye and a certain amount of discomfort. He traced the cause of the lesion to his having got a piece of metal in his eye while sharpening a ploughshare, which caused him to stop working. He sought advice from an old woman in his village, who licked the eye with her tongue. On examining him Gutzeit found that the left eyelid was swollen, that the conjunctiva bulbi was much congested, and that there was a red elevation on the border of the cornea. Immediately beneath the lower edge of the cornea there was an irregular white lesion about the size of a split pea. Gradually the conjunctiva became more inflamed till the eye could not be opened by the patient, and the raised lesion on the conjunctiva increased in size and felt definitely indurated and elastic. This lesion healed under powdering with iodoform. A fortnight later the pre-auricular and infra-maxillary glands became swollen, and a week afterwards a maculo-papular eruption developed over the body, and the adenitis became more general. The patient was treated by inunction of mercury and the eyeball made an excellent recovery, the only defects noted six months later being a greyish-red discolouration on the lower side of the equator of the bulb, on which was a smooth scar, and a certain amount of irregular astigmatism from contraction. On carefully looking over the literature on extra-genital chancres the author was able to find only

twenty-one cases in which the primary inoculation and lesion had occurred on the ocular conjunctiva. A photograph of the patient illustrates the paper.

J. M. H. M.

ON THE NÆVUS QUESTION. By J. FRÉDÉRIC. (*Archiv f. Dermat. u. Syph.*, April, 1904, p. 323.)

THIS contribution is based on the examination by the writer of a large number of soft nævi in the Pathological Institute at Strassburg, which is under the direction of Professor v. Recklinghausen. The material was obtained from biopsies and from cadavera, both of adults and new-born children. The writer begins by making a survey of the literature of the subject. In 1874 Durante first suggested that nævus-cells took their origin in the epithelium. This was followed by the classical work of Unna on the subject, which has been verified and substantiated by a large number of writers, and among them may be mentioned Kromayer, Kölliker, Waldeyer, and Whitfield. The opposing theory that these cells were derived from the walls of the blood-vessels or lymphatics was put forward and supported by v. Recklinghausen, Demicéville, Herxheimer, Schutz, and others. Joseph and Löwenbach adopted a middle hypothesis and asserted that in some nævi the cells took their origin in the endothelium of the vessels, while in others they were derived from the epidermis. Riecke, on the other hand, believed that they originated from embryonic connective-tissue cells, while Ribbert suggested the pigment-cells of the corium as their source.

The excised tissue examined by the writer of this paper was usually fixed in alcohol, but occasionally Müller's fluid was employed for this purpose when it was desired to stain the sections for nerve-fibres by the Weigert-Pal method. The histology of two cases are specially described.

In the first case a soft pigmented nævus about the size of a ten-pfennig piece was excised from a child aged five months. In this case the epidermis, both the Malpighian layer and the stratum corneum, was thickened, but the keratohyalin was defective in the transitional layer. No special change, such as elongation was noted in the inter-papillary processes of the epidermis. The pigment was irregularly distributed in the epidermis and corium. In the epidermis and in the external root-sheath of the hairs there were foci of pigmented cells. These were large oval or polygonal cells arranged like those of an epithelium, but presenting no inter-cellular fibrils or bridges. Their nuclei were small and irregular in contour and the protoplasm of the cell was dotted over with fine pigment-granules. Pigment-granules were also present outside the epithelial cells, forming irregular branching figures in the inter-cellular lymph-spaces. Immediately beneath the epidermis a number of pigment-cells similar to those above were detected in the papillary layer. These were collected in foci or clusters, or they were arranged in rows more or less parallel to the surface of the skin. These rows appeared to have a relation to the papillary blood-vessels, and here and there they formed a row of cells within the endothelial lining of a vessel. The cells in the cutis had the shape, structure, and arrangement of the nævus-cells described by Unna, though the three stages in the process of evolution of the nævus-cells as described by that observer, namely the proliferation of the epidermis, the metaplasia of epidermal cells in the corium, and the snaring-off of these cells, were not evident in Frédéric's serial sections of this case, and no

definite connection could be made out between the nævus-cells and the overlying epidermis, nor could any process suggesting a snaring-off of epidermal cells be detected. In fact, the writer did not seem to find any more reason for believing that the cells grew from above downwards than that they originated in the corium and spread up towards the epidermis, and his observations with regard to this case did not seem to assist in the solution of the problem.

The second case he describes in detail was also that of a pigmented nævus removed from a child, and the special point of interest with regard to the histology of the lesion was that it seemed to favour Ribbert's theory that the nævus-cells were derived from the pigmented cells of the corium. In this instance the epidermis was scarcely affected and the most noteworthy changes were those present in the corium. There the affected area was readily divisible into three zones or layers: (1) an upper layer in which the pigmented nævus-cells were arranged in foci around the blood-vessels; (2) a middle layer consisting of rows or strips of deeply-stained cells, polygonal or round in shape, with a finely granular pigmented protoplasm and various smaller pigmented cells, the rows being separated from each other by blood-vessels and fibrous tissue; and (3) a deep layer in which the elastic tissue had become attenuated to a few fibrils, and there was a marked increase in the fixed connective-tissue cells, with oval or spindle-shaped nuclei and only a little protoplasm around them, and a large number of mast-cells were present.

This case did not seem to prove that the nævus-cells were derived from the pigment-cells of the cutis any more than the last proved that they were not derived from the epidermis.

J. M. H. M.

SYMMETRICAL CUTANEOUS ATROPHY WITH THE COINCIDENT DEVELOPMENT OF SYPHILIS OF THE SKIN AND NERVOUS SYSTEM. J. A. FORDYCE. (*The Journal of Cutaneous Diseases, including Syphilis*, April, 1904.)

FORDYCE makes a well-illustrated contribution to the study of a rare affection, of which examples have been recorded under such terms as diffuse or progressive idiopathic atrophy, acrodermatitis chronica atrophicans, etc. Herxheimer and Hartmann include in the series cases of "erythromelie," recorded by Pick and Klingmüller, Kaposi's "Dermatitis atrophicans," and Neumann's "Erythema paralyticum."

The primary implication of the extremities, the sites of predilection over the dorsal surfaces of the hands and feet, the flexor surfaces of the elbows and knees, and the blue colour of the skin were noted in the case, as in those previously described. In these sites there was the characteristic atrophy, but in addition there were several sharply circumscribed areas of redness and infiltration on the legs and forearms which clinically somewhat resembled Lupus erythematosus, and which resulted in atrophy. Herxheimer and Hartmann emphasize the presence of an infiltration in the skin antecedent to the atrophy. Fordyce's case was complicated by syphilis of the skin and nervous system.

We limit ourselves to this brief note as the paper demands careful study in the original text.

T. C. F.

A CASE OF "WHITE SPOT" DISEASE. (*The Journal of Cutaneous Diseases, including Syphilis*, April, 1904, p. 188.)

SHERWELL exhibited another case of this affection at the New York Dermatological Society in the person of a single woman, aged 26 years. He considered it an exact counterpart of the case reported by Dr. Johnston and himself in the July number of the *Journal*, 1903, except that the duration of the affection in the present case was less than two years as compared with twelve or thirteen in the former. In the second case the abnormal areas were discrete and of a dull dead white by direct illumination, and appeared first at the base of the neck. Others appeared and enlarged beyond the size of a ten-cent piece. They covered the region from the mammae up on to the neck. Fordyce recalled a similar case in his practice, on the buttocks, sides of trunk and breast. The atrophy was secondary to a hyperæmia, but the reporter suggests this belongs to a different category.

T. C. F.

CREeping ERUPTION: ITS RELATION TO MYIASIS. LOUIS P. HAMBURGER. (*The Journal of Cutaneous Diseases, including Syphilis*, May, 1904.)

HAMBURGER observed a case in an imbecile boy, aged 4 years, at Baltimore. The parasite traced a serpiginous line, about two millimetres in width, on the right buttock. The more recent part was vesicular. The author gives an interesting review of our knowledge of this and allied affections, and refers to the discovery in Russia of a motile parasite, resembling the larva of a fly, about one-half centimetre from the actively growing end of the line. Sokolow described the parasite as one millimetre in length, and possessing ten segments, hooklets, better developed at the head end, which apparently had two suckers. Black nits, larger than those of the *pediculus capitis*, could be found adherent to the hairs in the neighbourhood of the burrow. This parasite was recognised as the larva of a bot-fly or *Oestrus*, of the genus *Gasterophilus*, probably of the species *Hæmorrhoidalis*. Sokolow's drawing of the larva is reproduced.

T. C. F.

REPORT OF A CASE OF BULLOUS LICHEN PLANUS ("LICHEN PLANUS PEMPHIGOIDES.") MARTIN F. ENGMAN. (*The Journal of Cutaneous Diseases, including Syphilis*, May, 1904.)

ENGMAN reports a case of well-marked generalised lichen planus associated with the evolution of bullæ scattered irregularly over the arms, hands, thighs, legs, and feet, in isolated groups or singly. The vesicated elements ranged in size from the smallest perceptible vesicle to bullæ larger than a silver dollar. They sprang from single plane lesions, groups of isolated lesions, or from patches. They were generally of an angular outline or partly round, with, at one or two points of their circumference, an abrupt angular projection. The wall of the dome was notably resistant. They could be produced by friction of lichen patches *which were the seat of an intense tingling pruritus*, but not in others. The patient had not taken arsenic.

The histological examination of what was apparently a typical young papule, removed by a sharp knife without cocaine or freezing, disclosed a striking degree

of œdema of the cutis, associated with an unusual firmness and resistance of the epidermis, and hence the genesis of the bullæ. Engman points out that the elastic fibres that disappear in the basal layer of the epidermis assist in holding the two structures, dermis and epidermis, together. In this case these fibres appeared to be degenerated.

The bulla was found to be formed by the lifting of the whole thickness of the epidermis, and the cavity was partially filled with coagulated albumen, fibrin threads, in the meshes of which were many polymorphonuclear leucocytes, large mono-nuclear leucocytes, small round lichen cells (?), and a few eosinophile cells. No micro-organisms were detected.

The author concludes that bullous formation in Lichen planus is not part of the pathological process of the disease *per se*, but that it may form in certain cases upon additional injury to the tissues through friction or accidental violence.

T. C. F.

ON THE ERYTHEMATO-SCLEROSES, AND ESPECIALLY ON THE PEMPHIGOID FORM OF ERYTHEMATO-SCLEROSIS. AUDRY.
(*Annales de Derm. et de Syph.*, January, 1904, p. 1.)

THE case which gave origin to this paper occurred in a boy aged 7 years. The history of the parents and of the patient presented nothing of importance, with the exception of a possible slight degree of rickets in the child. In 1901, when the boy was five years old, he developed a sudden acute attack of erythematous patches, of a violet colour and partially raised, on the cheeks, elbows, dorsal surface of the wrists, dorsal surface of the hands and fingers, the knees, legs, and very slightly on the dorsum of the feet. A few days later there was a sudden eruption of bullæ full of clear fluid, which developed on healthy skin not preceded by redness or urticaria, avoiding the previously developed erythematous patches, and being distributed on the lumbar region and the legs. The bullæ ruptured, became scabbed, and healed within three or four weeks. The erythematous lesions persisted during eighteen months, a few only disappearing, some completely, some with pigmentation. There was no interference with the general health or spirits. In April, 1903, he had a second eruption of bullæ, more particularly on the legs, and this attack subsided in four to five weeks. He was now seen by Audry. Scars from the bullous eruption were noted on the loins; there were large isolated papules, white and hard and round, on the cheeks; on the ears there were bluish lesions, some of them scabbed over, and much resembling a disappearing erythema multiforme. On the skin over the olecranon process on each elbow there was a round disc-like swelling sharply demarcated from the healthy skin, comparable to an enormous syphilitic papule. On the back of the forearm and wrists there were several reddish-blue patches slightly raised and running into each other; around these were brown stains; these latter were also seen on the dorsal surface of the hands. The skin over the fingers, from the level of the base of the metacarpal bones, was transformed into a greyish-blue, shiny, raised sclerous surface, fringed by an erythematous areola. The nails were normal. On the knees, above the patellæ, there was a bluish-red stain, without elevation. On the tuberosities of the tibiæ there was a raised grey wrinkled patch, and another behind the external malleolus on the right side. On the lower third of the tibia there was a large patch made up of round bluish lesions. Scattered over the

rest of the legs there were numerous brown or congestive stains. With all this surface implication there were absolutely no subjective symptoms. The urine was normal. Histological examination was made of a papular lesion from the right elbow. Specimens were fixed both in alcohol and Flemming's solution respectively. There was acanthosis without leucocytic infiltration. The basal layer was healthy; the rete was normal but definitely thickened. The main changes were noted in the corium, chiefly in the deeper layers of this down to the hypoderm. These consisted of (1) great dilatation and multiplication of the blood-vessels, and of the lymphatics as well; in the deeper parts some of the arteries had undergone a proliferation nearly approaching endarteritis obliterans; (2) inflammatory collections of cells round the vessels, consisting of lymphocytes, plasma cells, a small number of polynuclears, some mast cells, and a great number of pseudo-nuclei, apparently the *débris* of chromatin. It was remarkable that the connective-tissue fibres in this inflammatory area were in no way altered; the elastic fibres had completely disappeared throughout the preparation. In close juxtaposition to these diseased areas many of the connective-tissue bundles seemed to have undergone a sclerotic change, nearly ending in complete fibrosis.

With the specimen fixed in Flemming's solution nearly the same characters were noted, with the addition that the so-called "alterations cavitaires" were noted in the cells of deeper layers of the epidermis. The blood was examined, and gave the following ratio: four eosinophiles to one polynuclear, and eleven mononuclears. Thus the disease exhibited the character of persistent erythema, ending in fibrous hyperplasia or sclerosis, and the title "erythemato-sclerosis" is suggested as being better than that of "chronic erythema multiforme." The eruption of bullæ, apparently independently of the erythema, was remarkable. But little attention has been devoted to this group of erythemato-sclerosis, to which probably the cases of erythema elevatum et diutinum of Radcliffe-Crocker belong. Audry recognises two types of erythemato-sclerosis, according as to whether this is local or disseminated. The local form, of which three observations are quoted, one by Colcott Fox, one by Dubreuilh, and one by the author, usually occurs on the back of the hand. Of the second class, three distinct types have been observed: 1st, the "œdematous" type, comprising three observations of Hutchinson, in elderly patients; no histological examination was made and their character remains obscure; 2nd, a fibrous type, the so-called "erythema elevatum et diutinum," mostly in young people (eldest age recorded was eighteen years); 3rd, a pemphigoid type, of which the case above recorded seems the sole example. A bibliography is appended.

E. GRAHAM LITTLE.

PLATE II



Fig 1



Fig 2

DR. MACLEOD ON THE HISTO PATHOLOGY OF DARIER'S DISEASE

PLATE



FIG. 2



FIG. 3

FIG. 1

THE BRITISH JOURNAL OF DERMATOLOGY.

SEPTEMBER, 1904.

ON A CASE OF DARIER'S DISEASE.

By J. A. ORMEROD AND J. M. H. MACLEOD.*

THE case which forms the subject of this paper was demonstrated at the Dermatological Society of London on May 11th (*vide British Journal of Dermatology*, June, 1904, p. 225), and microscopical specimens from it were shown at a meeting of the same Society on July 13th, 1904. The rarity of the disease, and the fact that this is the first definite case of the affection to which Darier gave the name "*Psorospermose folliculaire végétante*," which has been exhibited to the Society, have induced the writers to describe the case in greater detail than has already been done in the Society's *Transactions* and to add a brief *résumé* of the subject.

CLINICAL DESCRIPTION OF THE CASE.

The patient was a married woman (Mrs. E—), and was aged 36 years.

She was first seen as an out-patient in the Skin-Department of St. Bartholomew's Hospital in May, 1904. She became an in-patient under Dr. Ormerod's care on May 26th, when the following observations were made:

She is a short, rather thick-set, almost stunted-looking woman, with somewhat coarse and puffy features. Her general health is, and always

* In this contribution the clinical description of the case was written by J. A. Ormerod, and the histological report and general remarks on the disease by J. M. H. MacLeod.

has been, good. There is no evidence of disease of any of the internal organs. She has been married ten years, but has had no children nor miscarriages. Neither her husband nor any of her own relations have suffered from any skin-disease that she knows of. Her family history is remarkably good. Her father and mother and nine brothers and sisters are all living and healthy.

A year ago, without any cause that she knows of, the rash began to appear, first on the neck, then on the abdomen, and last on the forearms. It began in the form of papules which itched, and which turned brown later.

The present appearance and distribution of the rash is very striking. On the back of both hands are a few scattered papules the size of a large pin's head, which can be felt above the general surface, but are not hard. They are not brown, but of the colour of the surrounding skin, and might easily escape notice. On the extensor surface of the forearms are numerous discrete papules, larger and more prominent than those on the hands and hard to the touch, so that the skin feels rough and rasp-like when the finger is passed over it. Some of these papules are faintly red, others beginning to turn brown, and they have a dark central spot. Although a hair appears to come through one or two of them, it is impossible to say whether all, or even the majority, are connected with the hair-follicles or not.

On the trunk the rash is more fully developed. It is present over the lower dorsal spines, and thence spreads forwards over the lower ribs in the form of a broad brown girdle. Reaching the flanks, it passes down the sides of the abdomen to the pubes. It also passes forwards to the middle line at the epigastrium, whence it reaches upwards over the lower sternum, though the spots are here less closely set. The umbilicus and central parts of the abdomen are not affected. The characters of the rash are best marked on the abdomen. Here the papules are large and broad (size of a split pea), closely set, so that the general appearance suggests that they have coalesced to form a diffuse rash; but nevertheless by careful inspection the individual papules can be easily made out. They are covered with a dark-brown crust; this can be removed without difficulty from each papule. After removal no distinct "crater" is left, but a somewhat flattened surface, marked and pitted, as it were, with two or three dark spots.

In both axillæ there is a similar rash, though here the spots are more discrete.

Over the neck the rash extends like a broad collar from the nape round the sides to the front of the neck and the clavicular regions, but it stops short of the middle line, so that the collar does not meet in front. The individual lesions here appeared to have coalesced more than on the abdomen; they are less prominent and the crusting is less marked. Indeed, at the back of the neck the rash largely consists of brown stains, though at the sides and front it still feels hard and rough.

The face shows no definite rash; the temples in particular are quite clear, but there is a slight and indefinite streak of pigmentation in the labio-mental folds.

The ears and external meatus are normal.

The scalp, when she was exhibited to the Dermatological Society, was covered with greasy scales; these have been removed by thorough washing, and it is now apparent (1) that there has been some diffuse loss of hair; and (2) that in many parts of the scalp there are small spots of brown staining, discrete, but otherwise resembling those on the back of the neck.

There is nothing abnormal on the skin of the legs or thighs.

The toe-nails are natural; the finger-nails are longitudinally striated and reedy-looking, and some of them are irregularly broken along their free edge, but they cannot be said to look distinctly diseased.

The tongue, interior of the mouth, and fauces are normal.

The distribution of the rash, whether on the neck, trunk, or forearms, is strikingly symmetrical.

According to the patient's statements, the rash begins in the form now visible on the hands and forearms, then becomes dark and crusted (as on the abdomen), and finally passes into the stains now seen on the back of the neck.

She went home after about a fortnight's stay in the hospital. During that time no material change took place in her condition.

HISTOPATHOLOGY.

A biopsy was performed, a piece of tissue about half an inch long being excised from the left inguinal region. The tissue included

several small greasy papules about the size of millet seeds and covered by dirty brownish adherent crusts. The tissue was fixed and hardened in alcohol and stained by various methods to demonstrate the epidermal cells, the presence of cellular degenerations and the state of the fibrous elements of the corium; the principal methods used being (1) the polychrome methylene blue and neutral orcein method (Unna), (2) the saffranin and water-blue method, and (3) the acid orcein method forelastin. About 70 longitudinal sections were cut and stained and the following histological changes were found to be present:

In all the specimens the epidermis was most markedly involved and the corium was comparatively slightly affected. By the *low power* the epidermis was found to be thickened in all its layers, and to present a much more wavy appearance on the surface than is usual in the skin of the inguinal region (Pl. II, fig. 1). The Malpighian layer had proliferated in an irregular manner and the inter-papillary processes had become widened and had sent down blunt prolongations into the corium, in some specimens as many as six of these being present. The granular layer dipped down into the blunt, almost lobulated, epidermal processes (Pl. II, fig. 2). Above the granular layer there were thick, horny plugs which were made up of an irregular mass and network of imperfectly cornified cells. The proliferated epidermal process, with its blunt horny plug, corresponded histologically to the papulo-crusted clinical lesion, and in each section there were three or more of these papules. In several respects they suggested in their histology small lesions of *Molluscum contagiosum*, since they formed blunt lobulated tumours, with a dip at the level of the granular layer, and an infolding of an imperfectly cornified horny layer. The raised-up portion of the plug which formed clinically the greasy crust had in most instances been broken off in the process of hardening and embedding.

These lesions occupied chiefly the position of an inter-papillary process and seemed to have been formed in most instances by the proliferation of a single process, but occasionally more than one had assisted in their formation. Several of the lesions corresponded in situation to the epidermal portion of a sweat-duct and the sweat-pore, but the majority of them seemed to be independent of the sweat-orifices. In only a few specimens did the horny plug and epidermal mass occur at the dilated funnel of a pilo-sebaceous follicle, the region in which it

was generally present in Darier's cases (Pl. III, fig. 1). Comparatively few pilo-sebaceous follicles were noted in our specimens, the funnels of those which did occur being involved. The majority of the lesions were as much independent of pilo-sebaceous follicles or sweat-pores as the lesions of *Molluscum contagiosum* are, and if they did occur in the site of a follicle, their presence there seemed accidental rather than essential.

Beneath the tumour mass the vessels of the papillary and sub-papillary layers were dilated and surrounded by an infiltration of inflammatory cells, which suggested an inflammatory disturbance resulting partly from the pressure of the overlying epidermal processes or from the irritation caused by the presence of micro-organisms and their toxins. It was comparable to the secondary inflammatory changes which are present in the corium beneath a tumour of *Molluscum contagiosum*, or in association with *Condyloma acuminatum*. The papillæ between the thickened epidermal processes were elongated and the apex of them in places came near the surface of the skin.

With the *high power* the peculiarities in the epidermis were more marked (Pl. III, fig. 2). The basal layer was somewhat irregular and blurred. It was not broken through, however, as it is in a malignant proliferation of the epidermis, but it was not so regular as in *Molluscum contagiosum*. The cylindrical and cubical cells which compose it were here and there swollen, and were in places so far separated as to allow leucocytes to make their way into the inter-epithelial lymphatic spaces. In a few of the cells there was a certain degree of œdema which had caused a dilatation of the meshes of the spongio-plasm of the cell. Here and there pigment granules were present in the cells of the basal layer. The deeper prickly-cells of the Malpighian layer had much the same character as those of the basal layer, but higher up, near the granular layer, a definite degenerative process had set in. Many of the cells had become separated from each other, and had assumed a round shape in consequence of the breaking of the inter-epithelial fibrils; the protoplasm of the cells had passed to the periphery of the cell, where it had condensed to form a cell-mantle; and the nucleus lay more or less in the centre of the cell, in a space. In other cells there was a space in the middle of the cell, and the nucleus had become compressed at the periphery to form

a crescent. Where the degenerative process was less marked the spongioplasm had assumed the character of a large-meshed network, and several cells in a similar condition in juxtaposition had produced a peculiar reticulated appearance. Where the destructive process had been excessive the inter-epithelial lymphatics had been widened to form rents or clefts between groups of cells. There has been some discussion as to whether these changes are the result of œdema and the reticulation and cleavage are really a commencing vesicle, or whether they are entirely due to a degeneration and a process of precocious cornification. That there is a certain amount of œdema present seems evident from the occasional presence of leucocytes in the dilated inter-epithelial spaces, but it cannot account for the principal change in the cells, and the degenerative process seems to begin within the cells. Several of the cells immediately below the granular layer had become separated and assumed an appearance not unlike psorosperms; the nucleus persisted in the centre of the cell; the surrounding protoplasm had become finely granular and the ectoplasm had condensed to form a membrane to the cell which had a doubly-contoured appearance; and the inter-epithelial fibrils had disappeared and allowed the cell to assume a round shape. These structures were about the size of epithelial cells. Other peculiar-looking bodies were formed by a portion of the protoplasm of the cell becoming adherent to the nucleus, while the rest of the protoplasm had separated and become compressed to form a membrane at the periphery of the cell, and this arrangement suggested an endo-cellular organism. Some of them seemed to have fallen out of the cells and left a space. In the protoplasm of others kerato-hyalin granules were present. These structures Darier named *corps ronds*, and at one time believed them to be psorosperms, and in this view he was supported by Lustgarten, Malassez, and Balbiani. A number of attempts were made to cultivate and inoculate the supposed organisms, but all with negative results, and the theory was finally abandoned, and they are now believed to be derived from the prickle-cells. In the affected area, and especially in the tumour-masses the transitional layers were much thickened. The granular layer, which dipped down into the widened processes, had occasionally as many as six rows of cells, the protoplasm of which was densely packed with kerato-hyalin granules. Immediately above

this the stratum lucidum was also more marked than usual. The stratum corneum, though it had greatly proliferated, showed signs of imperfect cornification, and many of the cells still retained traces of nuclei. They were not so firmly united together as in the healthy stratum corneum, and tended to become separated in groups to form scales. There were no deposits of leucocytes in the spaces between the scales as are to be found in the parakeratoses of inflammatory conditions such as eczema and psoriasis. There were, however, among the horn-cells a large number of peculiar round and oval structures, which were not so large as horn-cells, and were composed of a granular protoplasm. These structures were also first described by Darier, and he named them *grains*, and believed them to be extra-cellular psorosperms. In some of them a nucleus was present, while in others the whole structure was homogeneous, like hyalin, or granular (Pl. III, fig. 3). Like the molluscum bodies, both the "corps ronds," and the "grains" may be demonstrated in the fresh state in a drop of liquor potassæ.

Where the cornification was more perfect horny pearls or cell-nests were present in the horny plugs, and occasionally one or more of the "grains" formed a nucleus to the cell-nest.

Where a pilo-sebaceous follicle occurred the epidermis of the upper third or funnel was similarly affected and plugged with imperfectly cornified and partially degenerated horny material.

The lower portion of the pilo-sebaceous follicle and the infra-epidermal part of the sweat-apparatus appeared to be unaffected, except in a few specimens where the upper portion of the sweat-duct in the corium was definitely thickened.

The underlying fibrous elements in the cutis seemed to be healthy, and no degenerative process could be detected either in the collagen or the elastin. The cellular infiltration, which was confined to the upper layers of the corium or formed foci about the hair-follicles, consisted of leucocytes, lymphocytes, mast-cells, a few small connective-tissue cells, and an occasional plasma-cell.

GENERAL REMARKS ON THE DISEASE, WITH SPECIAL REFERENCE TO THIS CASE.

It is now fifteen years since Darier brought this peculiar affection, to which his name has been attached, into prominence. It had been

observed also and its clinical features recorded by Lutz and White, of Boston, but it was left to Darier to first clearly describe its pathology and to establish it firmly as a morbid entity. Since 1889 a sufficient number of cases have been reported to confirm in the main Darier's original description, though there are several important points in which this case as well as others does not conform to the type described by Darier. It is evidently a rare disease, for we have only been able to find reports of about thirty authentic cases and a number of doubtful ones which, although labelled "Darier's disease," from their description, and in one or two instances from the plates which illustrate them, suggest rather "Keratosis nigricans" (Pollitzer) or "Keratosis follicularis contagiosa" (Brooke) than "Psorospermiosis follicularis vegetans" (Darier). On account of its rarity and the present uncertainty with regard to several points in the original description of the disease, it is important to study each case with special care. The above case may be taken as a pretext to briefly review the present state of our knowledge with regard to this rare form of dermatosis. It will not be necessary for us to begin by giving a *résumé* of the published cases, as those who are specially interested in the subject will find a synopsis of them reported up to 1901 in an *Inaugural Dissertation* by Geissler on the subject, and a fuller bibliography in a *Dissertation* by Schwab, published in the following year (see bibliography).

Ætiology.—The disease, as a rule, begins in early life. Out of thirty-two cases, at least three began in the first year (de Amicis, Mourek, and Schwab); four occurred in the first decade (Boeck [2], Thibault, Bowen); six in the second decade (Boeck, Buzzi and Miethke, Manssuroff, Krösing, Pawloff, Bowen); and of the others only one case began after the age of thirty years. These figures are not absolutely reliable, as in a number of the cases the previous history was uncertain, and the age of incidence is only given approximately.

It affects males more than females, and about double the number of cases have occurred in males. Out of the twenty-three cases collected by Schwab there were fifteen males and eight females.

Heredity seems to play some part in the ætiology, for Marianelli records three cases in one family, in a brother and two sisters. Boeck observed it in a father and two sons, and White in a father and

daughter. Of course this might be an evidence, not of heredity, but of contagion, but up to now there has been no definite proof that the disease is contagious, a specific pathogenic organism has not been established, and inoculation experiments have given negative results.

The disease usually attacks a weakly individual, but not necessarily one in bad hygienic surroundings. There has not, however, been any connection proved between the disease of the skin and a diseased process in any of the internal organs, such as the association of abdominal cancer with the affection of the skin known as *Acanthosis nigricans*.

Symptoms and course.—The skin affection begins usually on the face, but it has been known to appear first on the arms, about the umbilicus, or on the back. When fully developed the eruption is present usually on the face, scalp, back, abdomen, where it frequently forms a girdle at the level of the umbilicus, flexures of the limbs, axillæ, inguinal regions, and about the anus and genitalia. The mucous membrane of the mouth and tongue are occasionally involved. The eruption has a markedly symmetrical arrangement.

The initial lesion is usually a papule varying in size from a pin's head to a millet seed, irregular in shape, of a dirty brownish colour, and covered with an adherent, horny crust, which, when removed, presents on its under surface one or more horny plugs, and leaves a red, weeping surface, which may bleed (Pawloff). In the centre of some of the lesions there is a black dot which Boeck regards as corresponding with the opening of a sweat-duct, while in others lanugo-hairs have been noted, or irregular openings may occur from which pus or sebaceous matter may be expressed. Certain of the initial lesions suggest papules of *Lichen planus*, while others resemble roughly a lesion of *Molluscum contagiosum* covered by a dirty crust. In places the lesions coalesce to form irregular, greasy, crusted patches, or they may remain more or less discrete and form stripes or rows, as about the axillæ, naso-labial folds, and inguinal regions.

Darier considered at first that the primary seat of the initial lesions was the funnel or upper third of the pilo-sebaceous follicle, and that if the epidermis between follicles were affected, it had become so secondarily. In this view he was supported by a number of writers; but there have been cases reported also, like this one, which have gone to show that the initial lesion may occur more frequently indepen-

dently of follicles than connected with them. Besides the patches formed by a coalescence of the lesions, papillated masses or "excrescences" may form about the inguinal regions, genitalia, or anus, and pedunculated growths have been described. These excrescences represent what Darier described as the secondary or vegetating period of the disease.

The lesions on the palms and soles may be associated with hyperidrosis and the thickened epidermis become offensive and sodden in consequence. Apart also from the actual papules and patches, the skin of the arms, neck, inguinal region, and axillæ may be diffusely thickened, may assume a dirty grey tinge, and may have the natural folds deepened.

In most cases the eruption on the trunk and limbs has been associated with a scaly or crusted condition of the scalp—not a slight dandruff, but a well-marked "seborrhoic eczema"—and the hairs have become dry and lustreless. In several cases also the external auditory meatus has been involved. In a few cases the presence of small papular lesions in the mucosa of the mouth, tongue, and lips has been noted, but in a large number of them no affection of the mucous membrane has been recorded.

The nails of the fingers and toes have been affected in the majority of the cases. A subungual hyperkeratosis has been present and the nail-plate has become dry, thickened, brittle, and, as a rule, longitudinally striated, and white opacities have been present. The nails appeared to present this dystrophy apart from the existence of lesions in the neighbouring skin. Subjective symptoms may be absent or negligible and consist only of slight itching; on the other hand, the irritation may be severe.

The disease is chronic and progressive; acute exacerbations may occur with the appearance of numerous fresh lesions. It is singularly intractable to treatment, but does not seem to be in the least degree dangerous to health.

Pathology.—In describing the histopathology of this case reference has already been made to Darier's original view that the seat of the primary lesion was the dilated funnel of a pilo-sebaceous follicle, and that the peculiar structures in the epidermis which he designated as "corps ronds" and "grains" were intra-cellular and extra-cellular psorosperms. Darier now recognises, however, that

the disease is not essentially follicular, and that the "corps ronds," instead of being psorosperms, are the result of an anomalous type of cornification, and have no causal connection with the affection. With this position most observers are now in agreement. Unna believes that hyalin degeneration is largely responsible for the formation of the "corps ronds" and the "grains" of Darier; he regards "the external, solid, broad, glassy ring as hyalin swollen ectoplasm, the inner, small, doubly-contoured one as endoplasm, which in some epithelial cells is only compressed, but in others has also undergone hyalin degeneration." There are many points of homology between Darier's disease and Molluscum contagiosum with regard to its minute anatomy, and though smaller, the "grains" are very similar to the "molluscum bodies." Just as in Molluscum contagiosum, the cause has still to be discovered. The fact that it occurs in families would be readily explained if it were contagious, but its symmetry and distribution rather support the view expressed by Pawloff that it may be a general disturbance of which the skin-affection is only a portion of the malady.

All that can be said in the present state of our knowledge is that, as far as the skin-eruption is concerned, it is a type of dyskeratosis associated with a peculiar cellular degeneration, which may affect any portion of the epidermis, and is frequently located at the upper third of the pilo-sebaceous follicle or the openings of the sweat-ducts.

Diagnosis.—The two diseases for which it is most liable to be mistaken are Acanthosis or Keratosis nigricans (Pollitzer and Janowsky) and Keratosis follicularis contagiosa (Brooke).

In Acanthosis nigricans the distribution of the lesions is strikingly similar, but the mucous membranes are more severely affected, and black, warty masses are usually present at the junction of the skin and mucosæ; the lesions are more horny and verrucose; the grouping of the lesions is different, and there is a marked tendency for them to be arranged in rows; and the skin is more deeply pigmented. Histologically it does not affect the follicles, and there is no marked cellular degeneration with the formation of pseudo-coccidia. Acanthosis nigricans does not affect families, it begins usually after the age of forty, it attacks females more than males, and is frequently associated with visceral diseases; while Darier's disease frequently occurs in

families, begins in early life, is more prevalent in males, and is not associated with visceral changes.

Keratosis follicularis contagiosa of Brooke (*Acne cornée* of the French) is so strikingly similar to certain of the cases of Darier's disease with regard to its age and onset, the fact that it may occur in more than one member of a family, and in the distribution and general characters of the eruption, that one is almost tempted to regard them as variants of the same disease, or the one as a mild example of the other. In the affection described by Brooke the peculiar degeneration of the epidermis has not been noted and it is invariably follicular.

Treatment.—So far the records of the treatment of this disease have been most unsatisfactory, and any improvement which may have taken place from the judicious application of local remedies has been of a temporary character. Still, considerable benefit may be got by the application of salicylic and sulphur ointments and the thorough cleansing of the offensive discharge by mild antiseptic lotions, dusting powders, or suitable medicated baths. The internal treatment must be conducted on general principles.

Nomenclature.—The name "Psorospermosis follicularis vegetans," given to it by Darier, is a most unfortunate one. It is not a psorospermosis, it is not essentially a follicular disease, and it is only vegetating in severe cases and in a late stage of its course. "Keratosis follicularis" (White, Bowen) is equally inappropriate, as it is not an ordinary keratosis and it may not be follicular. "Keratosis vegetans" (Crocker) is not so open to criticism, as it is non-committal with regard to the follicular origin.

Till the pathogeny of this peculiar malady is more fully understood it seems to us wiser to refrain from burdening the nomenclature with another name which might soon prove to be equally inadequate, such as that of "Epithelioma miliarium keratogenium," suggested by Buzzi and Schweninger, which would be just as applicable to Molluscum contagiosum; and we are content meanwhile to adopt the doubtful expedient of naming it after the writer who has done so much to bring it into prominence, "Darier's disease."

DESCRIPTION OF THE PLATES.

PLATE I.

Photograph of the patient.

PLATE II.

FIG. 1.—Photo-micrograph of longitudinal section, low power. Shows the great thickening of the stratum corneum forming blunt horny plugs; the widening of the inter-papillary processes; and the inflammatory cellular infiltration in the papillary and sub-papillary layers of the corium.

FIG. 2.—Photo-micrograph of longitudinal section, medium power. Shows the blunt horny plug; the dipping down of the thickened granular layer; and the peculiar degenerative changes in the cells of the Malpighian layer with the formation of spaces and clefts; numerous degenerated cells in the granular layer ("corps ronds"); and the blurred basal layer.

PLATE III.

FIG. 1.—Photo-micrograph of longitudinal section, low power. Shows an imperfectly cornified plug in the funnel of a hair-follicle, with a portion of a hair in the centre of it.

FIG. 2.—Photo-micrograph of longitudinal section, medium power. Shows the imperfectly cornified horn-cells of the horny plug.

FIG. 3.—Photo-micrograph of an epidermal cell (pseudo-coccidium), highly magnified. This structure was situated in the horny layer. It had a deeply-stained hyalin centre, and was surrounded in three-quarters of its circumference by a crescent of protoplasm, the remains of the ectoplasm of the cell. There was a number of other similar structures present in the sections.

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A CASE OF LUPUS VULGARIS TREATED WITH TUBERCULIN.

By E. GRAHAM LITTLE, B.A., M.D., M.R.C.P.,

Physician to the Skin-Department, St. Mary's Hospital.

THE patient was a boy-messenger, aged 16 years, in the service of the Great Central Railway. He is the youngest child of his parents, who are both alive and in fairly good health. There are three other children of this marriage, all apparently well. One child died at the age of three years from an unascertained cause. There is no family history of consumption.

Previous history of the patient.—He enjoyed apparently perfect health, the only infantile illness he had had being measles, until about fourteen months ago, when he cut his upper lip by an accident with a spinning wheel. The resulting wound did not heal perfectly, several attempts at repair being followed by breaking down and further extension of the disease upwards, until the nose became involved, five months later. He was first seen in the Skin-Department of St. Mary's Hospital about the end of May, 1903. He had at this time a deeply infiltrated and warty growth, involving the nose over the whole of its cartilaginous portion and the adjoining upper lip. The surface was foul from contamination with superficial organisms of suppuration, the affected part forming a rugose coarsely granular surface bathed in pus. A diagnosis of *Lupus vulgaris verrucosus* was made at this time, and wet dressings, first of boracic acid and then of lotio chinisol, were applied locally, with the administration of thyroid extract, three grains three times a day. When the surface became somewhat clean by these means, he was put on the X-ray treatment, having an exposure nearly every day. He made steady and satisfactory progress until August, 1903, when he sustained a severe blow on the nose which caused considerable increase of the inflammation and apparently gave him a downward thrust which seriously delayed progress. The treatment with X-rays and thyroid extract was continued, however, until December, 1903, but with so little encouragement that at this time he was placed under treatment with inoculation of tuberculin (T.R. of Koch.) by Dr. A. E. Wright,

Pathologist to St. Mary's Hospital, who was at the time collecting cases for treatment by this method. The inoculations were commenced on December 7th with a dose of $\frac{1}{100}$ milligramme. The agglutinative effect of the patient's serum on an emulsion of powdered tubercle bacilli was tested on every occasion before giving the inoculation. On the first occasion complete agglutination was obtained with dilutions of 2, 4, 8, and 16 times. On December 14th a second inoculation with $\frac{1}{100}$ mgr. was effected and the agglutinative reaction on this date was that complete agglutination was obtained with dilutions up to 32, and marked agglutination with dilutions up to 64. On December 17th he had an inoculation ($\frac{1}{100}$ mgr.) and the agglutinative reaction was feeble, only a trace being obtained with a dilution of 2, being absent with higher dilutions. He was therefore given a rest and had no further inoculations until January 21st; his agglutinative reaction was tested on January 4th, but was still feeble, complete agglutination being obtained only with dilutions of 2, but traces being perceptible with dilutions of 4, 8, and 16. On the 21st, the agglutination being complete with dilutions of 16, he was given another inoculation of $\frac{1}{100}$ mgr. A differential blood-count was made on this date also, with the following result: Lymphocytes, 13; mononuclears, 10; polynuclears, 72; coarse eosinophiles, 5.

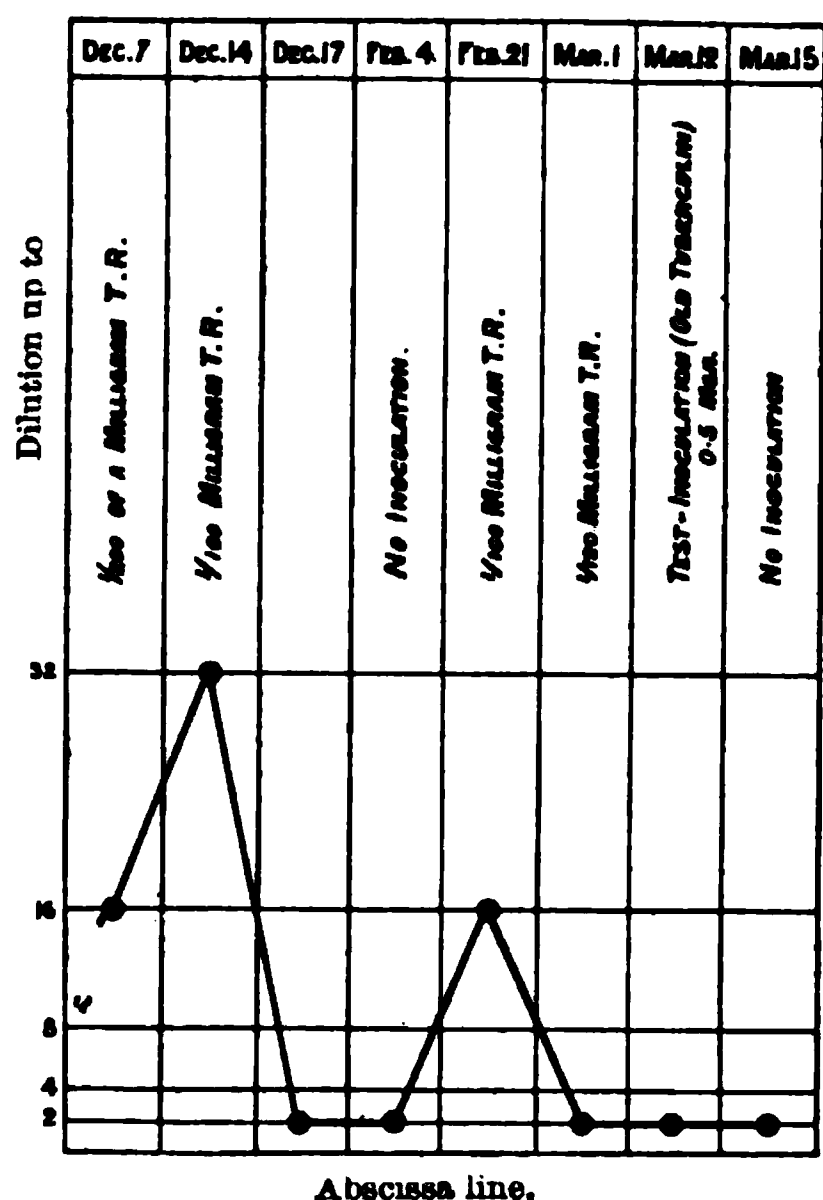
During the period of inoculation (December to February) the patient never showed any marked sign of improvement; the condition of the nose became worse, and the area of invasion seemed larger. At the time of the first inoculation it was noticed that there was a faintly pink follicular eruption on the abdomen and back which was diagnosed as Lichen scrofulosorum; this persisted throughout the treatment with inoculations. The appearance of the nose was so striking in the exuberant nature of this growth that a doubt was entertained whether some granuloma other than tubercular might possibly be present, and in order to elucidate this question it was decided to admit him to the hospital and to apply a test-injection of Koch's "old" tuberculin. He was consequently taken into my ward on February 11th, and the following notes recorded on the in-patient register: Patient is a pale, thin, delicate-looking boy; pulse, 80; slight irregularity in frequency and force; small volume; low tension. Respiration, 18. Temperature, 98.5°. *Urine*.—Pale, clear,

acid. Sp. gr. 1028. No albumen, sugar, or blood. *Heart*.—Rhythm slightly irregular, otherwise normal. *Lungs*, normal.

Local condition.—The skin over the cartilaginous portion of the nose and over the upper lip is considerably elevated, of a deep red colour and warty appearance. The skin feels firm, and much thickened, but there is no ulceration or discharge. The mucous membrane of the inside of the nose is similarly affected for a short distance from the anterior nares. This raised patch is surrounded by a narrow zone in which the skin is of a deep red colour, but not raised, and which fades imperceptibly into the normal skin. There is a rash over the trunk which is distributed on the abdomen, and over part of the chest and behind between the shoulder-blades and over the flanks. It is made up of small papulæ, the size of a pin's head, of a pale pink colour, discrete and with a follicular distribution. On February 13th at mid-day his pulse-rate was 84, respiration 20, temperature 98·5°. Immediately after this record he was given an inoculation of ·5 mgr. of Koch's "old" tuberculin, into the left flank, by Dr. Wright. At 6 p.m. the pulse was 84, respiration 20, temperature 97·6°. At 10 p.m. the pulse was 114, with increased volume and "bounding rhythm," respiration 24, temperature 100°. At 2 a.m. of February 14th the pulse was 112, respiration 24, temperature 101°. At 6 a.m. the temperature was 100·5°. At 10 a.m. the pulse was 96, respiration 20, and temperature 99°. The patient passed a good night and felt no discomfort, except a slight sore throat. There was no perceptible change in the condition of the nose, but the follicular eruption over the trunk, described above, became vividly red, and the papules more distinct and apparently increased in size. On February 15th the pulse was 88, the respiration 20, the temperature 97·8°. The sore throat had disappeared, and the patient felt quite well. The follicular eruption was losing its vivid redness. On February 17th the pulse was 80, respiration 20, temperature 97·8°, the rash on the body had faded to the colour that it had before the test-inoculation, and there was slight scaling of the papules. The patient was discharged on February 19th. Shortly after this date he ceased to attend St. Mary's, and my friend Dr. J. M. H. Macleod has since informed me that he has come under treatment at Charing Cross Hospital. Dr. Wright, who was responsible for the therapeutic inoculation with tuberculin, referred to this

case *in extenso* in his interesting address to the Dermatological Society of London on June 8th. The curves represented by the rise and fall in the agglutinative reactions in this case were demonstrated on that occasion, and it was pointed out that the case had been unsatisfactory because it had not been possible to time the inoculations so as to avoid accentuating the "negative phase" which normally occurs in these inoculations in the present state of the experiences with them. Dr. Wright with characteristic candour

F. Erswell. Agglutinating power represented by a curve. (Compiled by Dr. A. E. Wright.)



accepted this failure, but only as a stimulus to fresh investigation, and he has now perfected a means of estimating the phagocytic reaction for tuberculosis of the patient before giving the inoculations, which will probably result in far greater certainty and success in the administration of these.

By the kind permission of Dr. A. E. Wright, I am able to publish the detailed diagram he has made of the curve represented by the agglutinating reaction of the patient from time to time.

This pictorial representation will bring home to the mind more realistically than pages of writing the conditions to be combated

and the precautions to be followed in the treatment with inoculation. The extreme carefulness of the procedure adopted by Dr. Wright must impress the most casual observer. The method is the logical fulfilment of a therapeutic idea which has given established successes in other fields of disease and is destined, I am persuaded, to afford a welcome resource to practising physicians in a class of ailment which is so often painfully intractable. My warmest thanks are due to Dr. Wright for his co-operation and help in the case, and in the compilation of these notes; and to our joint assistant at St. Mary's Hospital, Mr. B. H. Spilsbury, B.A.Oxon, who has

watched the case and taken records of it with incomparable zeal and efficiency.

SOCIETY INTELLIGENCE.

DERMATOLOGICAL SOCIETY OF LONDON.

AN Ordinary Meeting of the above Society was held on Wednesday, July 13th, 1904, Sir STEPHEN MACKENZIE in the chair.

The following cases and specimens were demonstrated :

Mr. WILLMOTT EVANS showed a case of *Herpes gestationis*. The woman was 32 years of age, and was pregnant for the ninth time. Her first three pregnancies had not been accompanied by the appearance of any eruption, had continued to full term, and healthy children were born. The fourth and fifth pregnancies terminated in miscarriages at about three and a half months; no cause for these miscarriages could be found. The sixth pregnancy commenced nearly four years ago, and when she had been pregnant four and a half months, an eruption appeared, for which she applied to the Royal Free Hospital, where she was seen by Mr. Evans. The eruption then consisted of numerous bullæ over the greater part of the body and limbs, but they were especially well-marked on the legs, which were almost covered. There was some irritation, and many of the bullæ were ruptured, probably by scratching. Under general tonic and local sedative treatment the eruption improved and the patient was delivered at full term of a healthy child. Within a week of delivery the eruption disappeared completely.

The seventh and eighth pregnancies both terminated in miscarriages at about three and a half months, for some unknown reason, and no eruption appeared. The present pregnancy commenced nearly five months ago, and shortly after the beginning of the fourth month an eruption appeared. At first it was almost purely vesicular and appeared on the arms and legs, and slightly on the abdomen and on the neck. Within ten days of the first appearance of the eruption many of the vesicles had dried up, and an erythema had taken their place, especially on the flexor surfaces of the forearm. This erythema occurred in circular patches, consisting of concentric whitish and

reddish rings and producing an appearance closely resembling Erythema iris. Irritation was fairly well-marked. During the time she had been under observation (two weeks) she had certainly improved, the eruption becoming less distinct and less irritable. The treatment had consisted in the administration of saline aperients with tonics, and locally in the application of lead lotion. Her general health appeared to be good, but she was very nervous.

Dr. COLCOTT Fox presented (1) a man, aged 49, with the diagnosis of an *acute* outburst of *Lichen planus* supervening on a slight chronic eruption. Coincident with much worry and anxiety some papules appeared about eight weeks previously. It was difficult to ascertain the exact nature of these papules. Several weeks later an acute outburst followed with much hyperæmia of the face and conjunctiva, accompanied by intolerable burning and itching. When seen by the exhibitor on July 11th the face was nearly covered with raised infiltrated patches of a peculiar violaceous tint. Similar patches existed on the scalp. On the upper back and front of the chest thick scaly violaceous patches were present, and the rest of the trunk was dotted over with congestive papules. The limbs were similarly affected, and on the extensor aspects diffuse sheets were formed. The palms were thickly covered with colourless papular lesions.

The exhibitor said the diagnosis of acute congestive Lichen planus was often very difficult, especially where well-marked Lichen planus had not been previously identified. He made the diagnosis in this case chiefly from the history of a pre-existing papular eruption, from the peculiar violaceous tint of the eruption, and from the existence of burnished flat papules cohering and building up patches of disease. There were, however, no typical Lichen planus papules present. He thought Pityriasis rubra pilaris could be excluded. The traces of eczematization were to be easily accounted for by the intense irritation, and eczema seemed to be excluded by the absence of vesicles which would almost certainly have been detected somewhere in such a fierce outburst.

(2) *Lichen planus of Wilson with acuminate and plane lesions.* The eruption had been developing for several months, and now was distributed over the greater part of the trunk and limbs, but the face,

palms, soles, and mucous membrane of the mouth were free, and the flexor aspect of the wrists nearly so. The special feature of the case was that the bulk of the lesions were miliary in size, acuminate in form, with marked protrusion of horny spines, and without clinical evidence of inflammation. They were to a certain extent distributed in patches, but not notably so, and individually were indistinguishable from those met with in the Lichen spinulosus of Devergie. Interspersed amongst these miliary lesions, chiefly on the abdomen, was a scanty proportion of dull red maculo-papules from a pin-head to a split pea in size or somewhat larger. Some papules were raised and infiltrated, and presented in a striking manner the opaline streaking seen in papules of Lichen planus. Others did not project above the level of the skin, but, whilst looking rather atrophic, felt like thin parchment let into the skin. All were rounded in contour and smooth. There was no itching. A remarkable feature was the occurrence on the backs of the proximal digits and dorsum of the hand of minute black-headed follicular plugs as in Pityriasis rubra pilaris.

Dr. GRAHAM LITTLE showed (1) a case of a *linear unilateral nævus*, which had existed from infancy in a boy aged 12 years. It was about three inches long and ran behind and parallel to the eminence of the right sternomastoid muscle when this was contracted. The line of the nævus was about half an inch across, and its surface was pigmented deeply, verrucose and filiform to a degree resembling a thick pile carpet. In the immediate proximity of the main growth there were several satellite warty growths both at the extremities and borders of the line. Just below the lobe of the right ear there was a thin buff-coloured linear streak about half an inch long, not filiform or warty, not at all deeply pigmented, and very slightly raised from the level of the surrounding skin. This was also congenital.

The distribution of linear nævi had suggested an association with the metameric divisions of the body: in this particular case the line did not seem to correspond with any of the recognised areas of Head; his "sternomastoid area" he states to be parallel with and bordering on the anterior edge of the sternomastoid muscle, so that it does not correspond with the distribution of the line in this case.

(2) A case of *Lichen scrofulosorum* in a little boy aged about 6 years. He had a typical pink papular eruption arranged in characteristic groups and distributed on the lower part of the back, on the abdomen, and on the chest, both on its anterior and lateral aspects. The eruption had persisted for five weeks, and had given rise to no subjective symptoms. The boy suffered at the same time from an ulcer of the right cornea, possibly tubercular, and had an old nebula on the cornea of the left eye as well. He had also very much enlarged cervical glands, and was generally in a delicate state of health, but no physical signs of phthisis could be made out. The child was taken into St. Mary's Hospital on the day after the meeting of the Society, and a test-inoculation of one milligramme of "old" tuberculin was administered by Dr. Wright at 9 p.m. on the 14th instant, during his sleep, from which he was in no way disturbed. On the following day at 10 a.m. his temperature was 101°, and his pulse and respiration correspondingly increased in frequency. The child was fretful but not otherwise ill. The symptoms completely subsided within forty-eight hours. It was noted that the eruption of pink papules became vividly red during the reaction, and there was a slight erythema beyond the limits of the eruption. This faded, and the rash resumed its previous appearance as the general reaction declined. The phagocytic reaction of the blood to tubercle bacilli was estimated by Dr. Wright before the injection was undertaken, and was found to be .56, as compared with the operator's own blood. On the following day, when the reaction was at its height, it was very nearly the same, namely, .55, but on the 17th instant, three days after inoculation, it was 1.01. No untoward results whatever followed, and it is interesting to remark that an actual increase in phagocytic power in this (as well as in another case of tuberculosis) was noted as the result of a test-inoculation.

(3) A case of an anomalous granulomatous-looking infiltration of the skin of the neck in a man aged 33, a furnisher's assistant by trade. His history was as follows: He first noticed a "small lump" on the left side of the neck in October, 1902. It was then supposed to be a glandular swelling, and two other similar swellings arising in its immediate neighbourhood, he went at Easter, 1903, to a throat hospital, where carious teeth were supposed to be the cause of the swellings, and the teeth were accordingly removed. No improve-

ment following from this, a diagnosis of syphilis was made, and he was put on iodide of mercury for the ensuing three months. Then the swellings were incised and some pus evacuated. In February, 1904, he was admitted at the Middlesex Hospital, where a provisional diagnosis of actinomycosis was made, but no characteristic fungus was found in the pus. The swellings were opened and scraped. In April he was seen by Mr. Jonathan Hutchinson (senior), who thought the case was probably sycosis, and sent the patient to Dr. Wright for injections with anti-staphylococcic serum. By the courtesy of Dr. Wright he was brought to the skin department of St. Mary's, and was subsequently admitted into one of the beds allotted to that department. Some pus was obtained from one of the softer swellings and film preparations made and examined, with a negative result as regards the finding of the organisms of actinomycosis or blastomycosis. The hairs from the diseased parts were also carefully examined and no spores or mycelium found. A portion of the skin affected was excised and sections shown at the meeting. These exhibited a deeply infiltrated corium with extraordinarily large and numerous giant-cells, and in several places bodies resembling, if not actually, bacilli, retaining carbol-fuchsin in the Ziehl-Neelsen stain, but of a size (μ 2-5) which rendered their identification with tubercle bacilli problematic. Clinically the appearance was more suggestive of actinomycosis than of any other disease. The whole of the front part of the neck was occupied by a nodular red greatly puckered thickening of the skin, with a very little suppuration in one or two of the nodules. There was no breaking down of tissue or discharge. The disease stopped sharply at the chin, and did not go much below the level of the cricoid cartilage. Dr. Wright had estimated the phagocytic reaction of the blood of the patient for staphylococcus, and finding this equal to his own, was convinced that staphylococcic sycosis was an untenable diagnosis. But his reaction to tuberculosis was only .42, and this led to the suggestion that the disease was tubercular, an alternative which had also been suggested by Mr. Hutchinson. He was given a test-inoculation with "old" tuberculin (one milligramme) on July 4th. There was no reaction as regards pulse, respiration, or temperature on the following day, but the phagocytic index, which had been .68 just before inoculation, had fallen to .37. In Dr. Wright's opinion this fall "might

represent an attempt at a negative phase which was not sufficiently well-pronounced to give rise to clinical symptoms."

(4) A case showing very numerous lesions of a persistent erythematopapular type, which the consensus of the meeting diagnosed as *Bazin's disease*. The lesions varied in size from that of a pea to that of a two-shilling piece, and were profusely scattered over the legs, thighs, buttocks, and arms and forearms. The disease had commenced apparently six weeks previously with nodose swellings on the fronts of the legs, and these had been considered by a general practitioner to be *Erythema nodosum*, especially as there were associated rheumatic symptoms. But the lesions had not disappeared in the expected way, and fresh ones had come out. The lesions on the arms had faded very noticeably in the past two weeks since she had been brought to the hospital, whereas those on the legs had become deeper in colour, almost approaching cyanosis. The patient, a girl of about eleven, was sallow, anæmic, and thin. A section was obtained from one of the smaller nodules on the forearm and showed no definite pathological structure, and did not seem to give much countenance to the diagnosis of *Bazin's disease*, to which also the disappearance of the lesions on the arms in so short a time offered objections.

(5) A case of *Acne varioliformis* in a man of 40, who had had the disease for ten years. The malady chiefly affected the forehead and region of the whiskers, and there were extraordinarily numerous lesions of characteristic appearance in these parts and also over the greater part of the scalp. There was no history of syphilis and no sign of that disease. The scalp was seborrhoic, but only to a moderate degree, and the hair was no thinner than might be regarded as normal for his age.

(6) A case of "exfoliative dermatitis" shown as *pityriasis rubra*, in a man who was recognised by Dr. Whitfield as a patient previously shown by him under the same diagnosis several years before, but which had been conclusively proved to be an anomalous case of *acquired ichthyosis*. The man had been subject for the past fifteen years to erythematous eruptions, frequently mistaken for scarlet fever, and followed by exfoliation, as in the present stage. These exacerbations seemed to correspond to states of enfeebled health due to faulty nourishment; the exfoliation was always in small polygonal silvery

scales, and was never entirely generalised. Histological examination on the previous occasion had confirmed the diagnosis of ichthyosis.

Dr. J. M. H. MacLEOD showed (1) with Mr. CHARLES GIBBS a case of *syphilis with peculiar warty manifestations*. The patient, a man aged 62 years, presented himself for treatment at Mr. Gibbs' Clinic at Charing Cross Hospital, on July 7th, 1904. He was a rather delicate-looking man and was employed as a dairyman's carrier. The history of syphilis was somewhat uncertain, though the clinical characters of the majority of the lesions left no doubt with regard to the diagnosis. In 1869 he had had several sores on his penis associated with buboes, but he was not aware of any general eruption having followed the sores. A year later he was married, and was the father of three healthy children, and his wife had had no miscarriages. Several years later his tongue became ulcerated, and in 1878 the skin affection broke out, which was present on his face on exhibition, and which was of the nature of a late ulcerated and serpiginous syphilide. From these facts it seemed reasonable to infer that he had become infected with syphilis probably thirty years before he came under the observation of the exhibitors. When he came up for examination, the following lesions were present: His lips were much thickened, and his tongue was swollen, flabby, deeply fissured, and covered here and there with patches of thick, whitish fur, while in other places it was excoriated. The affection of the lips and tongue had begun in 1877, and the parts had gradually become swollen and had remained so ever since. Associated with the swollen lips there was an affection of the nasal mucosa and ozæna. The skin over the lower jaw on both sides, and extending down on to the neck, was the seat of irregular brownish-red patches, limited by a serpiginous crusted border about a quarter of an inch in breadth. Beyond the patches there was a number of smaller, raised, flat lesions, which were markedly indurated, irregular in outline, and the largest of them was about the size of a sixpence. In the centre of the larger patches there was a certain amount of scar-tissue mixed up with the brownish infiltrated deposit, and there was also a scarred patch on the chin. The patient was under treatment at that time (1885) at Charing Cross Hospital, and was having mercury and

iodide of potassium, and he stated that several similar brownish patches which had been present on his forehead had cleared up under the treatment. Large reddish-brown, indurated, and crusted patches were also present on the lower part of the abdomen, on the right inguinal region, on the buttocks, and on the back of the right thigh and the left ankle. These lesions first appeared in 1890, about twelve years after the face had become affected. The patches were brownish-pink in tinge, raised about 1 mm. above the level of the surrounding skin, and were limited by a well-defined border. They were distinctly indurated, and were readily diagnosed as late superficial syphilitic lesions. The patches were all diffusely indurated with the exception of that in the right inguinal region, which was made up of a number of small granulomatous lesions. Associated with the patch on the right buttock and the upper third of the thigh there was a large papillomatous, warty area, which was crusted in parts, while in others it was made up of numerous spiny lesions resembling stalactites sticking out from the skin, the longest of which were about half an inch in length. These spines were truncated at their outer ends, and were hard and brittle, and when pulled away left the corium exposed, and bleeding occurred. Between the time of incidence of the lesions on the limbs and the development of this singular warty growth the patient had been under treatment with large doses of iodide of potassium (about a drachm per diem) for eighteen months. Besides these lesions the left ankle and foot were much swollen, and the skin was thickened and horny, like a commencing elephantiasis. There was also a hyperkeratosis of the sole of the foot, and considerable hyperidrosis. The penis was also much swollen, and the patient had some difficulty in micturition. The swelling of the penis began in 1890, and had been steadily progressive. The condition of the left ankle and the penis was evidently the result of a lymph-stasis through blocking of the lymphatic vessels. The lymphatic obstruction might have accounted in part for the occurrence of the verrucose patch on the right thigh, but it seemed more probable that the crusted, warty condition was largely due to the irritation resulting from a secondary infection with pus-cocci.

(2) *Sections of the Case of Darier's Disease* shown by Dr. Ormerod at the May meeting of the Society. The microscopical appearances presented confirmed the diagnosis and showed the peculiar anomaly of cornification with the formations of pseudo-coccidia characteristic

of the disease described by Darier as "*Psorospermiosis follicularis vegetans*." A detailed description of the microscopical sections will be found on page 323 of this journal (*Brit. Journ. of Derm.*, 1904, XVI).

Mr. GEORGE PERNET showed a private case of multiple *Tinea circinata*, contracted from a kitten. The patient, a young adult, consulted Mr. Pernet on July 9th, when she presented rings, small patches, and pin-point and pin-head sized papules, scattered about the forearms and elbows, and about a dozen in all. The oldest lesions, which had commenced about a week previously as very small spots, were rings about half an inch across; the borders were red and scaly. The small patches were about one-eighth of an inch in diameter. One of these on the back of the neck was very suggestive of what is observed in *Microsporon Audouinii*. There was also a small patch of the same kind near the left inner canthus. The earliest lesions were minute papules. Scrapings examined in Liq. potassæ showed mycelial elements much like those found in *Microsporon Audouinii* of the glabrous skin. Mr. Pernet elicited from the patient that she had frequently taken up and fondled a half-Persian kitten which had been given to her three weeks before, but she did not think there was anything wrong with its skin. Mr. Pernet, however, had the kitten brought to him (July 11th) and found irregular bare greyish scaly areas about the animal's ears. A microscopical examination of some of the hairs showed numerous small spores arranged sheath-like round them, much as in *Microsporon Audouinii*. He hoped to report as to the result of cultivations at a future meeting. A point of interest was the rapid development of the rings in this case, due perhaps to the very hot weather and moist skin of the patient. No one else in the family had been infected.

Dr. RADCLIFFE-CROCKER showed (1) a case of *Xanthoma tuberosum* of the elbows and knees in a youth of 21, in whom the lesions had existed for six to seven years. There was no evidence of visceral disease, and an elder brother, now dead, had similar patches on one elbow. He also showed the drawing of the case taken three years before, and this showed that, while partial involution had occurred in the left knee-patch, some extension had occurred in the patch on the right elbow.

He showed (2) a man aged 28, who presented a raised, red, irregular, infiltrated patch in the interscapular region, with scaly crusts upon it, while on other parts of the trunk and limbs were irregular, well-defined, dry, scaly patches, which were evidently an early stage of the infiltrated condition on the back, which had only been present seven or eight weeks. There was not much itching, and the patient was in good health, but had had four or five attacks of dermatitis, called eczema, in the last eight years. The exhibitor suggested that the diagnosis was commencing *Mycosis fungoides*, a view which was generally accepted by the Society.

Dr. SEQUEIRA showed, by kind permission of Mr. Percy Dean, a man, aged 66 years, with a peculiar slate-grey *pigmentation of the skin* and mucous membranes. The discoloration was first noticed three years before, and had gradually increased in intensity. It was most marked on the face and upper part of the trunk and on the extremities. The visible mucous membranes were of a purplish tint. The patient had white hair, and his appearance at once suggested argyria. There was, however, no definite history pointing to his having taken silver salts at any time. He had resided abroad temporarily, but had never had malaria. There was no history of syphilis. He had extensive emphysema and bronchitis and associated cardiac dilatation, which were attended with severe dyspnoea. The liver was enlarged, and there was marked arterio-sclerosis. There was no glycosuria. Sections of the skin showed that the pigment was excessive in the normal situations, being well-developed in the rete, and particularly round the sweat and sebaceous glands. Dr. Sequeira considered the case to be one of hæmochromatosis, resembling those described by Dr. Mitchell Bruce and Miss Abbott, and probably associated with pigmentary cirrhosis of the liver and pancreas.

(2) A married woman, aged 37, suffering from a *lupoid eruption* on the right cheek. The case was shown for diagnosis, and presented some unusual features. The eruption began two years ago in the right malar region, and steadily spread until it involved about one third of the right cheek. The affected area was raised, nodular, and of a dark brown-red colour. It had never ulcerated, but plugs of a whitish colour could be pulled out of little pits in its surface. The whole area was infiltrated, and was tough on palpation.

The patient had two healthy children, and was now pregnant for the third time. There was no history of tuberculosis in the family. A thorough trial of mercurial inunctions had been made, and large doses of iodide of potassium had been given without any benefit.

Portions of the growth were found by Dr. Bulloch on microscopical examination to be inflammatory. Opinions were divided as to the nature of the lesions, but the majority considered the case to be one of *Lupus vulgaris* of unusual type and rapid development.

(3) A man, aged 22, suffering from *Lupus erythematosus*. There was no history of phthisis in the family. The patient had been married six years, and had two healthy children. The interest of the case lay in the implication of the mucous membrane of the right half of both upper and lower lips. There were also patches on the cheeks, upper eyelids, and nose.

Dr. WHITFIELD showed (1) a boy with *Lichen planus* to show the effect of treatment of the hypertrophic patches by means of direct sparking with a pointed electrode from the high-frequency resonator. The boy had been shown to the Society in July, 1903 (see *Brit. Jour. Derm.*, vol. xv, p. 293), with marked follicular and hypertrophic *Lichen planus* affecting the legs, and a curious patch on the right wrist which was considered by the exhibitor to be an anomalous patch of *Lichen planus*, but by all the members to be a local tuberculosis. The hypertrophic patches of *Lichen planus* had remained stationary, and had resisted all treatment by local applications, the actual cautery not having been used. While he was attending the hospital for ordinary treatment a biopsy was made from the patch on the wrist. He was then sent to Mr. Reid, of the electrical department of King's College Hospital, and was treated as already stated by sparking direct on to all the hypertrophic patches and the place on the wrist. The result was very favourable, the warty surface all peeling off and leaving only a slightly atrophic and pigmented surface. The treatment was painful but quite bearable, and the pain ceased immediately the sparking was stopped. The patch on the wrist had also improved but was not gone.

(2) A section of the patch on the wrist of the above patient. Dr. Whitfield pointed out that in this section there were none of the degenerative changes habitually present in tuberculosis, and for those

who liked the term "plasmoma" he might say that this was not a plasmomatous infiltration. On the other hand, the deep hyperkeratosis round the necks of the follicles and the openings of the sweat-glands seen in Lichen planus were well-marked here.

All the members who offered opinions on the section agreed that it was Lichen planus.

(3) A large thin scale of horny layer from a case of *erythrasma* stained to show the organism. Dr. Whitfield said that he showed the specimen for two reasons, namely, first, that one did not frequently see cases of erythrasma, probably for the reason that it did not usually give rise to any troublesome symptoms; secondly, because in those specimens that he had seen put up the scales had always been so ground up that the mycelial elements were all broken up and one hardly saw more than bacillary forms. In this specimen the tangled skein-like appearance with the terminal spores could be very well-seen.

CURRENT LITERATURE.

WHAT IS A SYPHILITIC DISEASE OF THE NERVOUS SYSTEM?

GEORGE OGILVIE. (*Clinical Journ.*, April 13th, 1904.)

IN a lecture delivered at the Medical Graduates College and Polyclinic Dr. George Ogilvie dealt in a philosophical manner with this important subject and the difficulties with which it is beset. He began by referring to the fallacies of the old chronological division of the syphilitic manifestations into primary, secondary and tertiary, and the error of placing the nervous symptoms of the disease in the tertiary period; for instead of the brain and cord being the last organs of the body to be attacked, as was once believed, they may be involved at an early stage in its evolution. He also deprecated the tendency to employ syphilis as a dumping-ground for a number of mysterious nervous affections the precise nature of which is not fully understood, and aptly remarked that "if there were such a thing as the Scotch verdict of 'not proven' in syphilography, syphilis of the nervous system would shrink surprisingly." The problem of the line of demarcation between diseases which may be labelled as surgical maladies and those the treatment of which is the province of the physician is of necessity imperfectly defined, and a certain degree of overlapping is inevitable; but we are entirely at one with the lecturer in considering syphilis to be far more a medical than a surgical affection, and in regarding the present arrangement as a wrong distribution of labour. But as this multiform disease, with its complexity of internal symptoms, becomes more fully understood, the present state of things will doubtless undergo a natural change. Still, it is well to remember the obvious—that just as in tuberculosis so in syphilis there are manifestations which require surgical, and symptoms which call for medical, treatment, and that it is by the intelligent co-operation of the physician and the surgeon that such diseases can

best be combated, rather than by the isolated efforts of either of them. There are many other points of interest in this lecture which space prevents us from referring to, but which well-merit a careful study in the original.

J. M. H. M.

HISTOLOGICAL APPEARANCES IN A RÖNTGEN-RAY ULCER IN A RABBIT. A. GASSMANN. (*Archiv f. Dermat. u. Syph.*, May, 1904, p. 97. Two plates.)

THE writer of this paper, who has already written on the subject of the histological changes produced in man by exposure to the X-rays, here describes the microscopical appearance of an ulcer which he produced in a rabbit by long daily exposures to these rays. The ulcer was excised down to the muscular layer. The principal changes were noted in the blood-vessels, the muscular layer of which had assumed a sieve-like appearance from spaces forming between the cells; and the intima had thickened. There was a cellular infiltration around the perineurium of the nerves. The fibrous bundles had broken up, and become surrounded by a cellular infiltration consisting of plasma-cells, plate-cells of Unna and numerous leucocytes.

J. M. H. M.

FURTHER CONTRIBUTION ON THE CLINICAL AND HISTOLOGICAL CHARACTERISTICS OF FOLLICLIS. A. ALEXANDER. (*Archiv f. Dermat. u. Syph.*, May, 1904, p. 17. Three plates.)

IN this contribution the writer describes in detail seven cases of folliclis, which occurred in the Dermatological Clinic of the General Hospital at Breslau. Case 1 was that of a female, aged 28 years, the subject of tuberculosis of the right lung, who had an eruption of the nature of erythema induratum affecting the right calf, and whose hands were cyanotic and scarred from folliclis. Injections of the old tuberculin produced a local and general reaction. Histologically one of the lesions from the leg showed that the disease was located first about the subcutaneous blood-vessels, where there was an endarteritis which blocked the vessels and which had caseated in the centre. A perivascular infiltration was also present, which spread up into the corium, where the infiltration had the character of that of a tubercular affection, and numerous giant-cells were detected, but no tubercle bacilli were found, nor were inoculation experiments successful. In Case 2 a papulo-crusted scar-leaving eruption was present on the face, neck, and arms of a child, aged 1 year, and on the back there was an eruption of lichen scrofulosorum. Injections of old tuberculin were followed by both a local and general reaction. The histological appearances of a lesion removed from the hand were not characteristic of tuberculosis. Case 3 was that of a girl aged 2 years, with an eruption of folliclis on the head, back and extremities. A general reaction resulted from old tuberculin injection; but the microscopical appearances were in no way suggestive of tuberculosis. Case 4 was that of a woman aged 23, who suffered from tuberculosis of the lungs, and who presented deep-seated nodules and scars on the lower third of the left leg. Injections of the old tuberculin produced only a general reaction. Case 5 was that of a governess aged 38 years, with lupus vulgaris of the cheek, folliclis on the arms, and in whom old tuberculin injections caused a local and general reaction. In case 6 the patient, a man aged 38, had a definite history of syphilis associated with folliclis, affecting the arms, hands

and legs ; there was some doubt regarding the diagnosis. Case 7 was a girl aged 16, with tuberculosis verrucosa cutis on the arms and feet, associated with a folliclis eruption on the extremities.

These cases serve to show the close relationship between folliclis and tuberculosis. The histological examination of them leads the author to believe that in one group of cases the essential lesion was due to an embolic process from a diseased lung, gland, or other organ in which an embolus with tubercle bacilli got stuck in the small arteries of the subcutaneous tissue, and there set up an endarteritis and peri-arteritis. This was followed by an arteritis obliterans and a caseation and necrosis of the thrombus. In another group of cases of folliclis, which he regards as a more superficial type, the histological architecture is not characteristic, and all that is noticeable is a more or less dense perivascular infiltration. The paper is illustrated by coloured drawings of the histological appearances.

J. M. H. M.

RODENT ULCER OCCURRING IN AN UNUSUAL SITUATION.

W. McMURRAY. (*Australasian Med. Gaz.*, May, 1904, p. 225.)

THE rodent ulcer referred to in this contribution occurred on the right arm of a woman aged 62 years. It began nine years before she came under the writer's observation, as a "spongy blood wart," which was flat-topped, brownish red in colour and firm to the touch. The surface gradually became abraded, broke down, and discharged a thin, watery fluid. It slowly extended at the margin till it attained the size of a five-shilling piece. The edges became hard and rounded, or "rolled over," the floor became deep and unequally excavated, and the lesion finally presented the typical characteristics of a rodent ulcer. A photograph of the arm with the ulcer is appended.

J. M. H. M.

XERODERMA PIGMENTOSUM, WITH SPECIAL REFERENCE TO THE CHANGES IN THE BLOOD. C. ADRIAN. (*Dermatologisches Centralblatt*, February, p. 130.)

IN this paper the author describes a case of Xeroderma pigmentosum in a male child, 23 months of age, of Jewish descent, and generally healthy and well-nourished. The case differed from many others in several particulars. Pigmentation began from the first, without any connection with the rays of the sun, and was not preceded by the early macular erythematous stage. Special attention is drawn to the fact that the patient came from a Jewish family. Elsenberg (1890), Terterjanz (1902), and Velhagen (1903) have laid stress on the frequency of the disease in Jews. In connection with this point the frequency of marriage with relatives among Jews must be remembered. In the literature of the subject the authors find nine undoubted cases of children in whom the parents were nearly related. In ten observations of his own the parents were cousins. Von Halle (1901) noticed the frequent occurrence of the dermatosis in members of the same family. According to his reckoning consanguinity was present in 10 per cent. of the cases. Bayard (1903) found the high percentage of 12.5.

In accordance with the prevailing idea of an inborn predisposition to Xeroderma pigmentosum, the errors of development and signs of degeneration in the patients as well as in the next-of-kin, are significant. The author's patient

presented no physical or mental abnormality, but a brother suffered from congenital double club-foot. The parents were free, and it is of interest that the parents never suffer from the same complaint, and those affected never transmit the disease to their offspring. This may be accounted for by the fact that the disease especially attacks young people, who succumb before they reach the age of procreation. But it is also a fact that inheritance has never been recorded with certainty. In recent years changes in the blood have been described by Gagey (1896), Okamura (1900), Riecke-Halle (1901), and Bayard (1903). The three last-mentioned authors found in their cases a diminution of the hæmoglobin and red blood-corpuscles; Okamura and Riecke-Halle also an increase of leucocytes. Gagey's case also showed a considerable leucocytosis. Bayard failed to find this, but met with the presence of poikilocytes. There was no marked leucocytosis in the author's case (9000 per c.c.), and the relation between white and red corpuscles and mono- and polynucleated cells corresponded to the normal. The hæmoglobin count was somewhat diminished, in spite of the increase of erythrocytes. Poikilocytes, pigment-containing leucocytes, and free pigment in the blood were absent. The oligocythæmia and enormous leucocytosis in Okamura's case might be directly dependent on the intensity of tumour formation and the breaking down of the tumours. The blood changes are referable to the condition of the skin and the consequent disturbance of the function of this organ. According to Okamura, this disturbance has a prejudicial influence on the whole organism, which results in a marked oligocythæmia and leucocytosis, showing that the blood-forming organs are disturbed in their function.

Whether specific blood changes are present or not in Xeroderma pigmentosum is not definitely determined. The approximately normal blood changes in the writer's case, which presented an early stage of the disease, and in which only a small part of the skin was affected, is undecisive in either direction. The paper is concluded by a tabulated list of the blood changes hitherto described in cases of Xeroderma pigmentosum.

S. E. DORE.

THE LOCAL AND GENERAL ACTION OF X-RAYS. GUSTAV BAERMANN and PAUL LINSE. (*Münch. med. Wochensch.*, June 7th, 1904, p. 996.)

THIS is a most interesting and suggestive paper. The authors cannot accept the conclusion come to by Scholtz that the epithelium is the tissue most quickly and severely damaged by the rays. They, on the contrary, maintain that the blood-vessels are the structures primarily and most severely affected, and they regard this damage done to the vessels as the most important of the effects produced by the rays. They argue that when the rays are applied to a psoriasis patch there is no evidence of damage done to the diseased and presumably not very resistant epithelium, but, on the contrary, the rapid production of normal epithelium. In their opinion it must be the vascular changes that explain the depilation that follows the application of the rays, and also the disappearance of subcutaneous cancerous nodules without destruction of the overlying epithelium. They describe some experiments undertaken to prove their contention.

A 10 cm. square area of skin was exposed to an irradiation of 6 H. (Holzknecht). On the next day two Lupus patches were excised. One wound was covered with Thiersch's grafts taken from the rayed area, the other with grafts taken from another part. Some more grafts were taken from the rayed area, and after being

kept forty-eight hours in sterile salt-solution were placed on the granulating wound of another patient. All the grafts grew. Later the rayed area showed a deep brown pigmentation with peeling of the epidermis, proving that a reaction had occurred.

The next experiment was suggested by Prof. Neisser. A large granulating wound with a proliferating epithelial border, produced by the excision of a Lupus patch, was treated as follows: on one half the centre and the surrounding skin were carefully protected so that only the proliferating epithelial border was exposed to an irradiation of 6 H. On the other half the epithelial border and the surrounding skin were protected so that only the granulating centre was exposed to the rays. In the next twelve days the epithelium grew equally on the two parts and covered the wound. But two days after the healing was complete, on the side where the centre only was rayed, a bullous upheaving of the epithelium appeared, so that it was eventually cast off. On the other half it remained fast.

The cornea of a rabbit was exposed to an irradiation of 8 H. without injury. As the cornea does not possess any vessels this was noteworthy.

A number of experiments were undertaken to see if the blood suffered any injury. They came to the conclusion that such injury was not demonstrable and was probably to be excluded. They remarked that the vascular changes were practically confined to the intima, *i. e.* to the layer in immediate contact with the blood, whereas there was no evidence of similar changes in the endothelium of the lymph-channels. They inclined to Goldstein's assumption that the rays were absorbed by the blood and converted there into some other form of energy.

In view of the fact that many authors have recorded the onset of fever after the application of X-rays, they made some careful metabolism observations in seven cases, full details of which are given. They found that in all there was an increased excretion of nitrogen in the urine that persisted or even increased during the following two to three days. After that the excretion of nitrogen returned to normal. Also the evening temperature was raised half to one degree in nearly all the cases for two days. They assumed that a toxic agent was developed by the action of the rays on the tissues, and compared it with the toxin assumed to be formed in severe burns.

W. B. W.

THE TREATMENT OF SKIN-DISEASES BY X-RAYS. Dr. JUL. MÜLLER. (*Münch. med. Wochenschr.*, June 7th, 1904, p. 999.)

THREE cases of pruritus ani were dealt with. In each instance the itching disappeared after a few applications. A hyperidrosis of the hands was cured, at any rate temporarily. After five applications of three minutes' duration the skin became hard, dry, and cracked, resembling a resorcin scale. When this peeled off it was found that the sweating had ceased in some places while still persisting in others. The dry parts were now protected, and the remaining surfaces exposed to the rays for seven minutes at a time. There followed, after five more exposures, a peeling similar to the first, and this left the palms free from sweat. Sweating still persisted on the finger-tips and borders of the hand. These were treated, and eventually all sweating ceased. A case of hyperidrosis of the anal region was greatly benefited. Excellent results were obtained in two cases of chronic eczema of the hands.

W. B. W.

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PLATE III.

BENIGN CYSTIC EPITHELIOMA.

CYSTIC DEGENERATION OF HAIR-FOLLICLE

TO ILLUSTRATE DR HARTZELL'S ARTICLE



PLATE I.

BENIGN CYSTIC EPITHELIOMA.

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TO ILLUSTRATE DR. HARTZELL'S ARTICLE.

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BENIGN CYSTIC EPITHELIOMA, AND ITS RELATIONSHIP TO SO-CALLED SYRINGOCYSTADENOMA, SYRINGO- CYSTOMA, AND HÆMANGIO-ENDOTHELIOMA.*

By M. B. HARTZELL, M.D.,

Associate in Dermatology, University of Pennsylvania.

WITHIN the past twenty years a small but constantly growing number of cases of a peculiar neoplasm of the skin have been reported by observers in France, England, Austria, and America, which, while differing in some minor details, such as the distribution and location of the tumours, yet have so many clinical and histological features in common as to suggest, if not identity, at least near kinship. In the great majority of cases the number of lesions was considerable, sometimes amounting to a hundred or more, but occasionally the number was quite small, even in a few cases limited to a single nodule. The malady was characterised by the presence of hemp-seed to large pea-sized, rarely larger, yellowish, yellowish-pink, less frequently bluish, tumours seated in a certain proportion of cases upon the forehead, nose, and cheeks, in others more or less strictly limited to the anterior surface of the upper two thirds of the trunk. The lesions usually first appeared in youth or early adult life, and slowly increased in numbers with the advancing years of the patient. The course pursued by the disease was an extremely chronic one, and in most cases

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the tumours ceased to grow after reaching a certain size, and underwent no further change. It should be noted, however, that in a few instances ulceration, such as takes place in epithelioma, occurred after some years, Jarisch, Hallopeau, and White having each reported an example of this complication. Subjective symptoms were entirely absent; indeed, in a considerable number of cases the growths were discovered accidentally while the patient was seeking advice for some other ailment.

While these cases, as already remarked, had much in common clinically, the picture presented by their microscopic structure, while agreeing in certain points, showed such variations as to lead to considerable differences of opinion among the reporters concerning their real nature. Viewed from a histological standpoint, they may be divided into two groups. In the first the tumours were made up of large rounded or irregularly-shaped masses of columnar-celled epithelium, in which there was a marked tendency to degeneration of the central cells, and consequent formation of pseudo-cystic cavities containing either granular *débris* or colloid material, and in a few instances considerable masses of pigment. The origin of the neoplasm could usually be readily traced to the basal cells of the epidermis or to the cylindrical cells of the hair-follicles, or to both, both modes of origin being seen in the same tumour, and even in the same section occasionally. These are the cases which have been described by Brooke, Fordyce, Hartzell, and others as *benign cystic epithelioma*, and for which Jarisch proposed the name *tricho-epithelioma* to indicate its association with the hair-follicles. Here, too, probably belong some at least of the cases described as *Adenoma sebaceum*. In the majority of instances the lesions of this group were found in some portion of the face, the trunk being entirely free; but there were exceptions to this rule, as in one of the cases which I reported some two years ago the lesions were strictly limited to the sub-clavicular and scapular regions. In the second group the lesions, while resembling in their external appearance those of the first, were usually found upon the trunk, on its anterior surface between the clavicle and the umbilicus, and were composed of long, slender, frequently branching tracts of spindle-shaped epithelial cells, resembling those of benign cystic epithelioma, these tracts being, as a rule, only a few rows of cells wide, and frequently terminating in

cysts with epithelial cell-walls filled with hyaline or colloid material. Among the first reported of such cases were those of Darier and Jacquet, who gave them the name *Hydradenome éruptif*; later, Török and Philippson reported similar ones observed in Unna's clinic, the former naming the neoplasm *syringocystadenoma*. As syringocystoma Neumann has also published two cases, to which we shall refer more particularly later. Jarisch, Elschnig, Wolters, and others have reported one or more cases, each under still another name, hæmangio-endothelioma. Very recently Gassmann and Winkler have each published in detail five cases under the title *Nævi cystepitheliomatosi*. Lastly, all are agreed that the affection described under so many names is identical with the malady first described by Kaposi some years ago under the name *Lymphangioma tuberosum multiplex*.

Concerning the first group of cases, those of Brooke, Fordyce, and others, there seems to be very little difference of opinion; it is generally agreed that these are benign epithelial neoplasms which originate in the basal-cell layer of the epidermis and in the hair-follicles, either or both. But, as is evident from the great variety of names given them, no such agreement exists concerning the second group. Darier and Jacquet, Török, Unna, and Neumann, consider the lesions in this group of cases to be epithelial growths, having their origin in the excretory ducts of the sweat-glands. Török, as already mentioned, reported his case as an adenoma arising from the sweat-duct, a view in which he was supported by Unna; but in the section upon adenoma of the sweat-glands written for Mracek's *Handbook of Skin Diseases*, he admits that he was in error in describing this case as one of adenoma; but he still maintains, however, that the neoplasm probably had its origin in aberrant, embryonic sweat-gland cells, a quite unnecessary hypothesis as it seems to me. Gassmann and Winkler also consider the tumours to be epithelial in character, but would place them among the nævi. On the other hand, Jarisch, Wolters, and some others, believe the lesions to be endothelial new growths which have their origin in the endothelial cells of the blood-vessels.

In a paper published some two years ago, in which I reported two cases of benign cystic epithelioma of the type described by Brooke, I concluded that all these cases probably represented three microscopically distinct affections, although scarcely distinguishable from one another clinically; but a further study of the literature of the subject,

and more especially the careful study of the case which I am about to report, have changed my opinion somewhat as to the real nature of this malady so variously named. It appears to me extremely doubtful whether the origin of any of the cases in any portion of the sweat-gland apparatus has been actually demonstrated; nor do I believe the endothelial character of the so-called hæmangio-endothelioma established beyond question.

The following case, seen in May of last year, seems to me to be especially interesting and instructive in connection with this subject. E. B., a young girl 14 years old, came to the Skin Dispensary of the University Hospital for advice concerning a growth upon the chin, which presented itself as a small, firm, button-like disc with a slightly concave surface, yellowish-pink in colour, which could be readily picked up between the thumb and finger. Upon close inspection a small number of minute, whitish bodies, resembling milia, were seen imbedded in the substance of the tumour. Upon inquiry it was learned that it had begun about four years before as a small "pimple," which at first attracted but little attention from the patient or the members of her family. There were no subjective symptoms of any kind associated with it, but as it was steadily although slowly enlarging and becoming quite noticeable, the patient was anxious to have it removed; it was accordingly excised. It should be noted that there were no other lesions of a similar kind upon any other part of the body.

Microscopical examination of the tumour revealed a structure consisting of numerous slender tracts of epithelial cells running in all directions through a fibrous stroma, and many round and oval cysts with epithelial walls, filled with a hyaline material which usually showed a more or less laminated arrangement (Pl. I). The tracts of epithelium which was of the cylindrical variety were in many instances quite long, sometimes branched, and usually not more than two or three rows of cells wide, presenting somewhat the appearance of the excretory ducts of the coil-glands. Occasionally tracts were seen which terminated in cysts, but this was not a frequent occurrence. Owing to the resemblance to sweat-ducts, careful search was made for a central lumen, but in vain; and no connection with any part of the sweat-gland apparatus could be demonstrated, although many series of sections were carefully examined with this in view. Search for a

possible connection between the cell-tracts and the vessels was equally fruitless. In many sections the hair-follicles presented striking evidences of abnormal growth. Frequently long, slender epithelial branches were seen extending from the sides of the follicles, these lateral branches being observed most frequently in its upper third: and in a few instances the lower extremity of the follicle presented numerous budding processes (Pl. II). In addition to this abnormal growth of the epithelium many of the follicles contained cystic cavities in various stages of development, in most of which the hairs were still present (Pl. III). In a word, it was strikingly evident that the neoplasm had its origin in the disturbed growth of the hair-follicles, presenting an exquisite example of a pure tricho-epithelioma. Not only did the epithelial meshwork start from the cells of the follicles, but the cysts, which were an equally striking feature of the tumour, likewise had their origin in these structures.

Now, in which of the two groups mentioned earlier should this case be placed? A very cursory examination of the sections is sufficient, I believe, to show that the neoplasm is identical in structure with the cases described as syringocystoma, hydradenoma, and hæmangio-endothelioma; but it seems to me equally clear that it is an epithelial neoplasm springing from the hair-follicles, and in no way connected with either the sweat-glands or their ducts, or the blood-vessels. The two cases which Neumann has reported as syringocystoma are without doubt precisely such cases as the one I have just described; a comparison of the plates accompanying Neumann's paper with the photo-micrographs of some of the sections of my case will readily convince anyone of their complete identity. I wish to call special attention to one of Neumann's figures showing a transverse section of a hair-follicle which is quite evidently undergoing such a budding process as I have described above. While Neumann calls attention to this peculiar abnormality, he seems to have missed its significance altogether.

From the foregoing it seems to me that one of two conclusions is inevitable: Either, neoplasms differing widely in origin and nature may resemble one another so closely histologically as to be practically indistinguishable, which is unlikely; or, those who believed that they were able to trace the origin of these growths to the sweat-gland ducts or to the blood-vessels based their conclusions upon insufficient evidence.

A word as to the relationship between neoplasms of this variety and benign cystic epithelioma of the Brooke-Fordyce type. Although, at first glance, there seems to be considerable differences of structure between them, a closer examination shows that these differences are more apparent than real. Clinically they are scarcely, if at all, to be distinguished from one another; and histologically both are composed of cylindrical epithelium: both undergo cystic degeneration; both have their origin in the hair-follicles; and, finally, both are chronic benign growths of indefinite duration.

In conclusion, I believe it is altogether permissible, in the existing state of our knowledge of the subject, to regard all these cases which have been so lavishly named as simply varieties of one and the same affection, for which the name benign cystic epithelioma is entirely suitable.

MULTIPLE LUPUS VULGARIS CONSECUTIVE TO MEASLES.

By H. G. ADAMSON, M.D., M.R.C.P.,

Physician to the Skin Department, Paddington Green Children's Hospital.

CASES of Lupus in which the lesions are multiple and scattered over distant parts of the body have long been recognised, and it has been noticed that the lesions in these cases often develop suddenly and simultaneously. Hutchinson has called attention to the fact that when Lupus vulgaris is multiple its patches always take their origin simultaneously by a sudden outbreak. Jamieson relates such a case. Crocker, in the second edition of his *Diseases of the Skin*, 1896, refers to multiple cases of lupus of sudden onset. It has comparatively recently been shown that these sudden outbursts of disseminated lupus are very frequently the sequel of an attack of measles, and that this exanthem is presumably a common etiological factor in this form of cutaneous tuberculosis. Philippon in 1892 published two cases of multiple lupus after scarlet fever; and Doyon in reviewing this paper in the *Annales*, drew attention to a similar case of Besnier's after measles shown at the Société Française in 1889; but it was not until Du Castel, in 1898, struck by this correlation of measles and

multiple lupus in three cases of his own and in two cases just previously published by Haushalter, suggested the significance of the association, that the fact was brought prominently forward. Since Du Castel's observations other cases have been recorded by Colcott Fox, Pelagatti, Loustan, Adamson, and by Du Castel himself.

On referring to the accounts of cases of multiple tuberculosis of the skin exhibited both before and since Du Castel's paper in 1898, one is struck by the constancy with which the fact of an antecedent attack of measles is incidentally mentioned. Loustan, in his thesis for the Doctorate in Medicine, has collected about twenty published cases, and to these may be added several others from the pages of the *British Journal of Dermatology* and elsewhere. Doubtless many other unpublished examples have been observed since Du Castel first drew attention to them, but I have thought it worth while for purposes of comparison to present the published cases briefly summarised in the form of a table.

In a typical case the patient, generally a child, shows patches of Lupus vulgaris varying in size from a split pea to a shilling or larger, distributed irregularly over the face, trunk, and limbs. Often the lesions have the distinctive appearance of lupus, showing the reddish-brown semi-translucent "apple-jelly" nodules. When the lesions are small each one may consist of a single such nodule, while the larger patches are made up of an aggregation of nodules as in typical Lupus vulgaris. Sometimes the lesions are scaly and suggest from their distribution and circumscribed character patches of psoriasis, although on closer inspection the infiltration and nodular features will always clearly distinguish them (cases 6, 13, 21). There is, again, a distinct tendency for the lesions to become verrucose, sometimes all of them, frequently those on the extremities (cases 2, 5, 7, 12, 18, 24, 25). The patches may vary in number from half a dozen or less to fifty or more. The child is frequently in good health and generally shows no other evidence of tuberculous disease. In a few cases there have been enlarged glands or scrofuloderma and in a case of my own there was subsequent hip disease, but there is seldom or never any visceral tuberculosis. On inquiry as to the origin of the eruption it is found that at some previous period, it may be months or years, the child had an attack of measles and that during or soon after the measles eruption the existing lesions suddenly and simultaneously made their

No.	Name of author and publication.	Sex and age of patient.	Nature of exanthem. Date of appearance of eruption.	Nature of lesions.	Other evidence of tuberculosis.	History and bacteriology of lesions.	Course of eruption.
1	Boenier, <i>Ann. de Derm. et de Syph.</i> , 1889, p. 34, "Lupus Tuberculeux aigu, nodulaire, Disséminé"	F., aged 4 yrs.	Measles at 3 yrs. Eruption 2 months after	Hard, slightly raised nodules of yellowish-red colour, 40 in number, distributed irregularly over the body	Otherwise healthy	Guinea-pig inoculated, died of tuberculosis later.	Had existed 1 year unchanged 12 months later.
2	Comby, <i>Ann. de Derm. et de Syph.</i> , 1889, p. 166, "Tubercules cutanés Multiples aux Gommies Scrofulo-tuberculeuses"	M., aged 64 yrs.	Measles at 4½ yrs. Eruption immediately following	Violaceous, verrucous (verru-cose) tubercules. 4 lesions. Left thumb, middle finger, right little finger and thumb	Child pale. Pea-sized scrofulous cruminate on right arm. Later, tuberculous meningitis	—	Had been present 3 years.
3	Philippon, <i>Berliner klinische Wochenschrift</i> , 1892, p. 358, "Zwei Fälle von Lupus Vulgaris Disseminatus an anschliessender Acute Exantheme"	F., aged 11 yrs.	Scarlet fever at 7 yrs. "After the exanthem"	Red papules disseminated over the whole body. 140 papules	—	"Diagnosis of lupus confirmed by histological examination"	Had been present 3 years.
4	von Lupus Vulgaris Disseminatus an anschliessender Acute Exantheme"	F., aged 12 yrs.	Scarlet fever at 3 yrs. "Very rapidly after"	Lupus nodosities disseminated over the whole body. 27 papules	Mother died of phthisis	—	Had been present 6 years.
5	Doutrelepont, <i>Archiv f. Dermat. u. Syph.</i> , 1894, t. xxix, p. 211, "Beiträge zur Haut Tuberculose"	F., aged 6 yrs.	Measles at 4 yrs. "With the rash"	Rounded, well-defined raised tumours covered with scales or crusts. Those on hands present a papillary structure. 29 in number, size from 5-pfg. to 5-mark piece	General health good	Reaction with tuberculin. Histological examination confirmed diagnosis. Inoculated guinea-pig, died of tuberculosis	Had been present 3 years.

No.	Name of author and publication.	Sex and age of patient.	Nature of exanthem. Date of appearance of eruption.	Nature of lesions.	Other evidence of tuberculosis.	Histology and bacteriology of lesions.	Course of eruption.
6	Du Castel, <i>Ann. de Derm. et de Syph.</i> , April, 1895, vol. vi, and 1898, vol. ix, p. 729, "Tuberculeuse Cutanée Consécutive à la Rougeole"	M., aged 5 yrs.	Measles at 3 yrs. Eruption immediately after	4 nodules on face. 5—6 on right wrist and thumb, with thick psoriasiform crust. Several on thighs, all crusted. 20 disseminated on legs and feet	No glandular nor visceral lesions	—	Quickly reached present size, and have remained almost unchanged.
7	Adamson, <i>Brit. Journ. of Derm.</i> , vol. vii, p. 111, April, 1895, and vol. xi, p. 20, 1899, "Multiple Lupus Verrucosus"	M., aged 3 yrs.	Measles at 2 yrs. Eruption appeared during the attack.	Many raised purplish-brown scaly or warty papules from $\frac{1}{10}$ inch to $\frac{1}{4}$ inch in diameter scattered over trunk and limbs	Good health. Subsequently post-pharyngeal abscess and hip disease	—	Twelve months later the eruption had almost disappeared, leaving pigmentation but no scarring.
8	Leichtenstern, <i>Munch. med. Wochenschr.</i> , No. 1, 1897, p. 1 et seq. "Acute Miliary Tuberculosis of the Skin in a Case of Generalised Acute Visceral Tuberculosis"	M., aged 4 yrs.	Measles 4 weeks previously. Eruption 2 weeks	Poppy-seed to hemp-seed sized, very red, firm, acuminate, well-defined papules surrounded by normal skin. On face, trunk, upper extremities, and lower limbs. Came out in crops of 6—8	Died of acute visceral miliary tuberculosis at end of 6 weeks	Histological examination of papules showed numerous tubercle bacilli	Most papules underwent complete involution within 8—14 days. Some showed minute vesicle or pustule at apex, and then dried up.
9	Abraham, <i>Brit. Journ. of Derm.</i> , vol. ix, p. 335, 1897, "Multiple Lupus"	F., aged 6 yrs.	Measles at 5 yrs. Present eruption "ever since the measles"	Discrete, raised, soft, yellowish-brown, translucent, typical, "apple-jelly" nodules on face, body and limbs	Strumous dactylitis. Enlarged glands in neck	—	—

No.	Name of author and publication.	Sex and age of patient.	Nature of exanthem. Date of appearance of eruption.	Nature of lesions.	Other evidence of tuberculosis.	Histology and bacteriology of lesions.	Course of eruption.
10	Du Castel, <i>Ann. de Derm. et de Syph.</i> , 1898, vol. x, p. 733, "Tuberculose de la Peau Consécutive à la Rougeole"	M., aged 3½ yrs.	Measles at 2½ yrs. Eruption 3 weeks later	Plaques made up of groups of 2 or 3 tubercles occupying face, limbs, trunk, thighs, fingers, and toes	Well - developed and stout. Sinus in neck. Subcutaneous cold abscess on left foot. Bronchitis	—	—
11	Du Castel, <i>Ann. de Derm. et de Syph.</i> , 1898, vol. ix, p. 729, "Tuberculose de la Peau Consécutive à la Rougeole"	F., aged 12 yrs.	Measles several years ago. Eruption followed immediately	Groups of 2 to 6 tubercles, deep red or barley-sugar coloured, forming plaques on face, trunk, limbs, back of foot. Not less than 50 lesions	Good health	—	Many years without tendency to aggravation or resorption. No ulceration. Some have disappeared.
12	Colcott Fox, <i>Brit. Journ. Derm.</i> , 1898, vol. x, p. 253, "Exanthematic Miliary Tuberculosis"	1½ yrs.	Measles at 1 yr., quickly followed by chicken-pox, and then sudden appearance of eruption	Indolent, dull - brownish - red, acuminate papules round a follicle, and showing central punctum of acne scrofulorum (the true pustular summit not present), 1 on eyelid, 2 on cheeks, and 12 on each limb. One or two larger nodules size of a pea on backs of hands and feet with no central punctum, but rounded and smooth on becoming papillated.	Health good	—	Persisted for many months. All lesions gradually disappeared with the exception of one on a knuckle which developed into a verrucose lesion (<i>Brit. Journ. Derm.</i> , vol. xii, p. 396).
13	Colcott Fox, <i>Brit. Journ. Derm.</i> , 1898, vol. x, p. 329, "Lupus Vulgaris of the Clinical Type, called by Hutchinson, Lupus Psoriasis"	F., 2½ yrs.	Measles and whooping-cough at 8 mos. of age. Eruption first noticed at 12 mos. of age	Patches closely simulating psoriasis in size and in distribution of the lesions, but less scaly and more infiltrated, and with some indication of hypertrophy of the hand lesions. About 16 lesions	Delicate	—	—

No.	Name of author and publication.	Sex and age of patient.	Nature of exanthem. Date of appearance of eruption.	Nature of lesions.	Other evidence of tuberculosis.	Histology and bacteriology of lesions.	Course of eruption.
14	Haushalter, <i>Ann. de Derm. et de Syph.</i> , 1898, vol. ix, p. 455. "Deux Cas de Lichen Scrofulosorum, etc."	M., 12 yrs.	Measles at 11 yrs. Present eruption one month later	50 to 60 millet-seed to hemp-seed sized papules, rose coloured, with horny or squamous crust at centre, situated on trunk, arm, and face. On left wrist and on left elbow are 20 centime-sized red, dry, horny papules	Good health, lymphatic aspect. Enlarged submaxillary glands	Inoculation of guinea-pig from scrapings of smaller lesions gave positive result	Several papules are fading.
15	Ditto	F., 5 yrs.	Measles at 3½ yrs. Present eruption followed	Consists of (1) 80 hemp-to-millet-seed sized rose, centrally crusty, trunk, and 1 to pea-sized "nodosities" violaceous, squamous, 1 on left arm, 2 left forearm, and 1 right arm; (3) pea-sized violaceous verrucose "tuberosities," 1 right hand, 1 right index finger, 2 right knee	Delicate, with purplish ex-tremities	Inoculation gave positive results both from papules and from nodules	Two years later whole eruption had almost disappeared, leaving only a few papules and tubercles.
16	Du Castel, <i>Ann. de Derm. et de Syph.</i> , April 23rd, 1900, "Tuberculose cutanée Consécutive à la Rougeole"	F., 18 yrs.	Measles at 6 yrs. Eruption appeared during few weeks following	Franc-sized plaque on arm and Good on face	Good	—	Face lesion had rapidly enlarged to present size and had remained thus. That on arm disappeared, leaving a franc-piece sized scar.
17	Török, <i>Archiv für Derm.</i> , t. xl, p. 18, "Lupus Vulgaris Disseminatus"	F., 2½ yrs.	Measles at 1½ yrs. Eruption a short time after	16 lesions left cheek, left ear, back, right hand, thighs, buttocks, left hand, etc.; pea-to-bean-sized lesions characteristic of Lupus	—	Török suggests the possibility of embolic origin	No tendency to retrocede, but to increase slowly.

No.	Name of author and publication.	Sex and age of patient.	Nature of exanthem. Date of appearance of eruption.	Nature of lesions.	Other evidence of tuberculosis.	Histology and bacteriology of lesions.	Course of eruption.
18	Jessner, <i>Internat. Atlas des Mal. rares de la Peau</i> , "Tuberculose Cutanée Framboisiforme Disséminée"	F., 15 yrs.	Measles at 9 yrs., then otorrhoea and spots on the skin.	Brown-red, raised, nodules, 2 to 10 mm. Surface smooth or slightly frambosiform on face and ear, neck, arm, limbs, and back. 99 lesions	General health good. No visceral nor glandular disease	Histologically granuloma, no bacilli. Inoculation of rabbit negative, guinea-pig positive	Lesions have grown very slowly. 2 nodules returned after excision.
19	Pelagatti, <i>Giorn. Ital. delle Mal. ven. e della Pelle</i> , 1898, p. 704 "Tuberculose Miliare Aiguë Disséminée de la Peau"	M., 2 yrs.	Measles 6 weeks previously. Present eruption few days	Hemp-seed sized, pale yellowish, disseminated papules having the aspect of a papulovesicular eruption. Posterior and inferior part of trunk and lower part of limbs	Weakly. Glands in neck and axilla. Cough	Biopsy.—All the characters of a tuberculous neoplasm developed round vessels. Tubercle bacilli in large numbers	—
20	Du Castel, <i>Ann. de Derm. et de Syph.</i> , April 23rd, 1900, "Tuberculose Cutanée Consécutive à la Rougeole"	F., 6 yrs.	Measles and broncho-pneumonia at 4 yrs. Eruption "one month after"	50-centime sized plaque on each cheek. One nodule made up of half dozen seed sized, coloured on left foot. Isolated tubercles and agglomerated tubercles on arms	Healthy, no gland enlargements. No tuberculous history	—	No change in size. Some have disappeared.
21	Graham Little, <i>Brit. Journ. Derm.</i> , 1900, 208, "Eruptive Skin Lesions"	F., 7 yrs.	Chicken-pox at 5 yrs. Earliest lesions said to date from this	8 dry, scaly, lupus-like patches, size from a shilling to half a crown. Latest lesions 9 mos. old and ulcerating	General health good. Cervical glands moderately enlarged	—	Eruption had existed 2 yrs.
22	Leredde, <i>Traité de Derm. Hallopeau et Leredde</i> , 1900, "Lupus Disséminé consécutif à la Rougeole"	? 5 to 6 yrs.	After measles broncho-pneumonia	Disseminated lupus nodules	—	—	—

No.	Name of author and publication.	Sex and age of patient.	Nature of exanthem. Date of appearance of eruption.	Nature of lesions.	Other evidence of tuberculosis.	Histology and bacteriology of lesions.	Course of eruption.
23	Loustan, <i>Thèse des Tuberc. Cut. Consecutives aux Fièvres Eruptives et en particulier à la Rougeole</i> , Paris, 1901, p. 57, "Lupus Consecutif à la Rougeole"	F., 4 yrs.	<i>Measles</i> . Present eruption 2 mos. later	On right cheek a reddish-yellow placard measuring 1 cm. x 2 cm., on which are a dozen pin-head sized reddish-violet nodules. On right cheek a nodule 4 x 5 mm. and one 7-12 mm. x 3½ cm.	Well developed. Two brothers died of phthisis	—	2 years later one lesion gone, leaving a scar, the others little altered.
24	Crocker, <i>Diseases of the Skin</i> , 3rd ed., 1903, p. 740.	F., 3 yrs.	Remarks that <i>measles</i> is a frequent antecedent in these cases	20 lesions Lupus verrucosus	—	—	—
25	Crocker, <i>Diseases of the Skin</i> , 3rd ed., 1903, p. 704.	M., 10 yrs.	"As usual they came out altogether after <i>measles</i> "	47 patches millet-seed, 10 shilling sized Lupus verrucosus	—	—	—
26	Gaucher et Druelle, <i>Journ. des Mat. Cut.</i> , 1904, p. 100. <i>Cutaneous rapueuse consecutive à la Rougeole</i>	M., 8½ yrs.	<i>Measles</i> 5 weeks ago. Present eruption 3 weeks	An almost generalised eruption of small lentil-sized dull red papules with brownish adherent central crust apparently consecutive to a minute collection of pus. <i>Diagnosis</i> : Tuberculosis	Slightly enlarged glands in groins and in axillae	—	Died 3 weeks later of tuberculous meningitis, the skin lesions having remained unaltered.
27	Adamson, <i>Brit. Journ. Dermat.</i> , 1904, vol. xvi, p. 95, "Multiple Lupus"	F., 5 yrs.	<i>Measles</i> at 2 yrs. Eruption first noticed about 2½ yrs. ago	scattered over the body—7 in all—split pea to small bean sized	Delicate child, chronic diarrhoea (tuberculous)	<i>Biopsy</i> .—Typical microscopical appearances of Lupus vulgaris. No tubercle bacilli found	Very slowly increased in size since first appearance. All the nodules have been excised.
28	Colcott Fox, unpublished case, "G. L. Multiple Lupus"	M., 4½ yrs.	<i>Measles</i> at 2½ yrs. Eruption noticed soon after	Lupus patch ½ in. diameter on right cheek, 9 other smaller patches on arms and legs	Child in good health; no family history of tubercle	—	The patches have slowly increased in size during the last few years. Several faded but no fresh lesions.

appearance, and that they have since remained unaltered, or that they have only very slowly increased in size, or even that few or many of the previously existing lesions have entirely disappeared. This tendency of the lesions to disappear spontaneously without leaving any scar is a noteworthy feature. In one of my own cases the whole of the lesions disappeared in the course of twelve months and without treatment (see also cases 11, 12, 14, 15, 16, 20). In the majority of cases in the accompanying list, however, the existing lesions had been present for several years and many had reached the size of considerable plaques. The subsequent course of some at least of these lesions if left untreated may be conjectured. Probably most of the somewhat rare adult cases of extensive areas of Lupus vulgaris in distant parts of the body are later stages of this multiple lupus of childhood, although the history obtained from the patient in these cases often apparently points to the origin of the foci at widely different periods.

Apart from these typical Lupus vulgaris cases a few others have been recorded in which the lesions have been more acute and clinically not to be regarded as lupus, although undoubtedly tuberculous. That is to say, they have been observed at the time of the outbreak, or within a few weeks of their first sudden appearance. As a type of these, one may quote the remarkable case of Leichtenstern (8) in which immediately after measles there occurred an outbreak of very numerous poppy- to hemp-seed sized papules with a minute vesicular or pustular apex, the patient dying shortly of acute general tuberculosis. Histological examination of the lesions revealed numerous typical bacilli. Similar to this is Pelagatti's case (19), in which a few days previously, also just after measles, there had been an eruption of numerous hemp-seed sized papules in which also tubercle bacilli were found in large numbers. The child was weakly, had glands in neck and axilla, and a cough, but the subsequent history is not related. More recently the case reported by Gaucher and Druelle (26) in which the small papular lesions, bursting out a few weeks after measles, were looked upon as "tuberculides" but where no biopsy was made. This patient also died of acute meningitis some few weeks later.

Pathology and etiology.—Doutrelepont, Philippon, and Jessner confirmed their diagnosis of lupus by histological examination. Positive results from inoculation of animals have been obtained by Besnier,

Jessner, Haushalter, Doutrelepont. In one of my own cases in which I excised the lesions microscopical examination showed the usual appearances of lupus tissue. I did not succeed in finding tubercle bacilli. In the acute cases Leichtenstern and Pelagatti found large numbers of tubercle bacilli in the hemp-seed sized papules. There can be no doubt that measles plays an important part in the etiology of the disease; the relationship is too constant and too close in point of time to be accidental. The suggestion that the toxin of measles softens some pre-existing tubercular focus, and gives rise to an embolic shower, seems the most feasible explanation. Occasionally there may be no previous history of measles, or of any other exanthem. This was so in a case of my own in which there were five lesions, two on the neck, said to date from birth, and three on the thighs, which had only been noticed since twelve months. The child was 2½ years of age, and had suffered from no exanthem. Again, in an unpublished case of Dr. J. M. H. MacLeod there were about twenty split pea to sixpenny-piece sized lesions scattered over the body. The child was seven years of age, and the lesions had been present two years. There was an indefinite history of measles at nine months of age, but there had been no immediately antecedent exanthem. In Philippon's cases the antecedent exanthem was scarlet fever, and in Little's case varicella.

In the very great majority, however, there is a history of measles, the tuberculous eruption appearing nearly always immediately after or within a few weeks of the attack of measles.

The embolic theory practically demands that the lesions must have been at some period acute, and also that emboli must have at the same time occurred in the viscera and other parts than the skin. The cases of Leichtenstern, of Pelagatti, and of Gaucher and Druelle afford good illustrations of such general embolic processes. Here the lesions were multiple, widely scattered papules of acute eruption, accompanied also by extensive visceral emboli. The skin lesions, in fact, formed part of an acute general tuberculosis, to which in two instances the patients succumbed. These cases may be regarded as representing a severe form of the acute stage of the eruption, and it seems probable that the Lupus vulgaris cases have originated in the same manner, but that, owing to a smaller shower of bacilli, the initial illness has been less severe, and, on account of a greater power

of resistance of the patient, the bacillus has failed to gain a permanent footing except at the seat of the lupus lesions. The earlier minute papular lesions, the immediate result of the embolism, might easily be overlooked during the illness of measles or possibly regarded as an eruption of chicken-pox (cases 12, 21). In one case of Dr. Colcott Fox (12) and in Haushalter's cases (14, 15) small papular eruptions were still present long after the onset in addition to the true lupic nodules.

Treatment.—It may appear superfluous to add any remarks concerning the treatment of an affection which is essentially a Lupus vulgaris, but I wish to emphasise the fact of the tendency for certain of the lesions to disappear spontaneously. This I believe to be especially the case with the smaller verrucose and scaly lesions; so that before using more drastic measures it is advisable to put the patient on a course of diatetic treatment with fresh air and cod-liver oil, and where the lesions are not too numerous, the application of salicylic plasters. Failing this, or in the case of larger lesions, excision is the most satisfactory plan, or, in the case of lesions on the face, the Finsen or X-rays.

THE SEVENTY-SECOND ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, HELD IN OXFORD.

*Report of the Proceedings of the Dermatological Section,
July 27th, 28th, and 29th, 1904.*

WHATEVER may have been the misgivings that the unique attractions of the most beautiful of academic cities would seriously interfere with the work at the sectional meetings, in the case of the Dermatological Section at least these fears have proved to have been unfounded, for rarely in the history of these meetings has the section been better attended throughout, or have the discussions and papers been listened to with greater interest and appreciation; and as the secretaries did not follow the usual procedure of previously announcing the titles of the special papers, the majority of the members were pleasantly surprised at the large number of valuable contributions to the subjects which were communicated. The section was held on the 27th, 28th, and

29th of July in the Histological Room of the Physiological Department of the University Museum, under the presidency of Dr. T. Colcott Fox. There was a peculiar fitness in the choice of the president of the Dermatological Section at this meeting, for the incomparable charm of this ancient city of learning formed a fitting environment for one whose courteous demeanour, persevering industry, and enthusiasm for his subject, have rendered him respected and beloved among his fellows not only in this country but in every country where dermatology is a science.

At the first meeting of the section the customary introductory address was this year omitted, and the President in a few words expressed a cordial welcome to his colleagues, and especially to his distinguished American *confrères* who were present, namely, Professor Gilchrist, of Baltimore; Dr. M. B. Hartzell, of Philadelphia; and Dr. J. C. Johnston, of New York.

Before opening the first discussion the President invited Dr. DOUGLAS HEATH, of Birmingham, to demonstrate his case of *Acne keloid*. The patient was a man, aged 56 years, and the lesions affected not only the back of the neck but also the left ear and cheek, the skin of which was raised, œdematous, glossy, and of a dull reddish colour. Characteristic lesions of the disease were present on the nape of the neck. Histological specimens of the case were shown, and lantern slides prepared from them were demonstrated. The most noteworthy clinical peculiarity of the case was the patches of diffuse reddish-brown infiltrated skin on the ear and cheek, which in several details suggested an old-standing lesion of *Lupus vulgaris*. The histological architecture also closely resembled that of *tuberculosis cutis*, and consisted of foci of giant-cells and plasma-cells, with a destruction of the connective-tissue fibres where the infiltration was densest, and a fibromatosis at the margin of it. The epidermis overlying the granulomatous masses had undergone a secondary proliferation. There was some difference of opinion whether the case was one of *Acne keloid* associated with a blocking of the lymphatics, producing a lymph-stasis, a fibromatosis, and the somewhat elephantiasic condition of the ear and cheek, or whether it was a double infection of tubercle bacilli and probably staphylococci. Dr. RADCLIFFE-CROCKER supported the former view, while the President considered that the nature of the case was uncertain. Professor GILCHRIST remarked that

a similar histological appearance occurred in the indurated lesions of *Acne vulgaris* to that shown in Dr. Heath's sections, which he believed to be the result of an infection of the *Bacillus of acne*. Dr. MacLEOD referred to the resemblance between the histology of this case and that of several types of septic granulomata, in which *Staphylococcus aureus*, probably in a state of diminished virulence, was the causal agent. He also remarked on the difficulties of distinguishing these lesions histologically from those of tuberculosis.

Dr. FREEMAN, of Reading, demonstrated (1) a case with the provisional diagnosis of *Leucokeratosis buccalis*. The patient was a middle-aged man, and a moderate smoker, though some years ago, before the onset of the affection, he had smoked in excess. There was no history of syphilis and no signs of Lichen planus on his skin. The affection had begun about six months before exhibition. The lesions were situated inside the mouth, and consisted of numerous white, slightly raised spots about the size of a pin's head, and with a tendency to grouping. They were symmetrically placed on the inside of the mouth and cheeks, and tended to coalesce to form whitish patches, the two largest being about the size of a shilling, and situated opposite the two last molars. There were no subjective symptoms. He showed also (2) a case of *Epidermolysis bullosa hereditaria* in a boy aged 11 years. The disease had existed from birth, and bullæ about the hands and feet had been constantly present. Large bullæ developed from the slightest injury to any part of the skin, and at the time of exhibition there were two blisters on the elbows and one upon the ankle. The mucosa of the mouth had been affected, but neither the respiratory passages nor the conjunctiva had as yet been involved. There was no history of a similar case in the patient's family.

After the demonstration of these cases, Mr. MALCOLM MORRIS opened the first discussion on the "Treatment of Pruritus ani" with a thoroughly practical and comprehensive *résumé* of the subject. He began by defining the term Pruritus ani, and limited the condition to the orifice of the anus, the mucous membrane for an inch up internally, and the circular band corresponding to the corrugator cutis ani externally. He pointed out that the pruritus might be either a symptom resulting from various general causes, the most common of which were disorders of the digestion, gout, and rheumatism, or might be reflexly produced by disturbances of the genito-urinary apparatus ;

or it might be a local condition dependent on local causes, such as piles, constipation, or small ulcers about the anal orifice. After discussing these different causes he described in detail the treatment which was specially applicable to the various types of the disease. He emphasised the importance of ascertaining the cause before commencing treatment and of carefully examining the patient, not only externally, but also *per anum* in every case. Having determined the cause, every effort should be made to remove it. Disorders of the digestive system, especially of the liver, constipation, gout, the presence of gall-stones, and other constitutional disturbances should be treated on general principles. Reflex derangements originating in the genito-urinary system should be appropriately dealt with. On the other hand, local affections, such as piles, fistula, worms, fissure, and irritating discharges from the vagina must be attacked locally. He recommended the use of a bland, non-irritating dietary, and careful regulation of the bowels, noting in this connection that aloes should be avoided as a purgative, since it was apt to excite the pelvic circulation, produce piles and hæmorrhage from the bowel—in short, to aggravate the very condition which required to be cured. Tonics ought to be employed when the patient's general health was below par. Sedatives and narcotics should be prescribed with the utmost caution and only when clearly indicated. He referred to the value of occasionally flushing the system with weak alkaline waters, such as Vichy, and the benefit which was generally derived from the *régime* of the various hydro-therapeutic establishments. He pointed out the fact that in certain cases the disease appeared to be a neurosis, for which neither local nor general treatment was of benefit, but in which moral treatment was of the greatest service in diverting the patient's attention from the affected part and rousing him to a sense of his duties and responsibilities.

Local treatment in suitable cases was indicated, and while there was no infallible cure, no case should be regarded as incurable. The first essential in the local treatment of a case was absolute cleanliness, especially after defæcation, and he recommended the washing of the part at nights with warm water and coal-tar soap. In many instances sponging of the part with water as hot as could be borne or the use of hot sitz baths gave relief, but there were occasional cases in which cold water was more soothing than hot. Various anodyne

lotions, such as carbolic lotion, the liquor carbonis detergens and solutions of menthol in alcohol, were of undoubted service, but the speaker had obtained his most satisfactory results from the employment of cocaine, especially in the form of suppositories containing half a grain. He spoke also of the relief which was obtained from pressure properly applied, and recommended the wearing of a special bone plug with a shield. If there were any local focus of disease, such as a small ulcer, it was essential to destroy it either by excision, silver nitrate, or the actual cautery. In employing the cautery, the point at a dull red heat should be drawn along the lines of radiation at the anus and not across them. He referred in conclusion to the dangers of over-treatment and to the necessity of treating every case with perseverance, firmness, and tact.

This paper resulted in an interesting discussion, which was taken part in by the President and various members. Among these was Dr. RADCLIFFE-CROCKER, who regarded disorders of the liver as the commonest cause of this affection in middle age. He considered that one of the most valuable local remedies for it was the application of suitable ointments with strong pressure and massage of the parts, by which means the congested anal blood-vessels were emptied. He did not regard cocaine in as favourable a light as Mr. Morris, and found it liable to set up a local eczematous condition. Dr. FREEMAN strongly advocated dilatation of the sphincter, a proceeding which Mr. Morris thought should be employed with great reservation. Professor GILCHRIST referred to the use of the X-rays in this connection, and Mr. PERNET mentioned a case in which great relief had been obtained from cycling.

Dr. HARTZELL then contributed a paper on *Benign cystic epithelioma (Tricho-epithelioma of Jarisch)*, and discussed its relationship to *Syringo-cystadenoma* and *Lymphangioma tuberosum multiplex*.* Dr. BROOKE, in discussing the case, said that he agreed with Dr. Hartzell that these variously named conditions were really the same or variants of the same affection, but he did not go so far as that observer in believing that they took their origin chiefly from the prickle-cell layer of the hair-follicle. He referred to a case of his own, microscopical sections of which were demonstrated, in which the cellular deposits in the corium developed from the epidermis itself.

* The above paper is published in full in this issue.

He was inclined to place the condition provisionally in the class of nævi.

Mr. GEORGE PERNET next read a short communication on a case of *Pemphigus vegetans* from the lesions of which pure cultures of *Bacillus pyocyaneus* had been obtained. He suggested the possibility of a causal connection between a disease clinically resembling *P. vegetans* and the bacillus, and of the infection occurring from the effluvium from sewage. Since various other organisms such as the *Bacillus coli communis* have been isolated in similar cases, and there was no definite proof that the bacillus was pathogenic in this case, the suggestion was not generally accepted by the members.

At the second meeting of the section the subject for discussion was "The Comparative Value of Old and New Methods of Treatment of Lupus and other Skin Diseases," and it was introduced by Dr. J. H. SEQUEIRA. He treated his subject in an open-minded and judicious manner, basing his statements entirely on the results of his extensive experience at the London Hospital. He confined his remarks chiefly to the treatment of Lupus vulgaris. He pointed out in the first instance that there were two considerations that determined the choice of a method of treatment of Lupus vulgaris, namely, the complete destruction of the lesions and the production of the least possible disfigurement, the latter being especially important in exposed parts of the skin. He referred to the limitations of the older methods of treatment by excision, scraping, scarification, and cauterisation, and to the fact that though excellent results had been obtained by all these methods, still disappointment regarding them was the rule rather than the exception. Scraping he believed to be probably the worst of the surgical procedures, as by it complete eradication of the diseased tissue was rarely accomplished, and as it was liable to open up the lymphatics it might actually cause the dissemination of the disease. In all cases where it was adopted he emphasised the necessity of cauterising the scraped surface. By scarification good results had been obtained, but it was only applicable to cases in which small areas were involved. Cauterisation had the disadvantage of not being as a rule sufficiently radical, and if it were thoroughly done on an extensive patch the scar which resulted was most disfiguring. The chief value of the purely surgical methods, specially

excision, was in treating the covered parts of the body where the character of the scar was of minor importance. He then discussed the different modern methods by photo-therapy, X-rays, and radium. Where the disease affected the face, did not involve a large area, and where the mucous membrane were sound, he believed that there was no method equal to photo-therapy, both with respect to the destruction of the diseased tissue and the formation of a pliable and slightly noticeable scar. To obtain this result it was necessary to use the original large Finsen lamp or the newer Finsen-Reyn lamp, the Lortet-Genoud lamp and its modifications being too superficial in their action to destroy deep-seated foci of disease. The same want of penetration was the characteristic of the various "spark-lamps" in spite of the large percentage of ultra-violet rays which radiated from them. Of the different means at our disposal for intensifying the action of the actinic rays he found the most valuable to be the painting of the part with a 1 per cent. solution of erythrocyne. The statistics of the London Hospital showed that already 216 cases of Lupus vulgaris treated by Finsen light had been discharged as cured, and as they had reported themselves at intervals for inspection and no recurrence had been detected the result was eminently satisfactory. The obvious drawbacks of the method of treatment were the expense both of the apparatus and the working of it and the time occupied in the treatment. A few years ago it was thought that the time of exposure could be greatly diminished by the Lortet-Genoud lamp, but it had now been proved that even longer exposures by that instrument were necessary to produce results equal to those of the original Finsen lamp.

In cases where there was more or less ulceration present, or where the mucous membranes of the mouth or nose were affected, the X-rays gave better results than photo-therapy. In the speaker's experience the mucous membranes were involved in about 40 per cent. of the cases of lupus. He found that the X-rays quickly caused ulcerated surfaces to heal and produced a rapid improvement in the lesion, but this did not penetrate sufficiently deeply, and the rays seemed incapable of dispersing the deeper foci of disease. He considered also that the scar which resulted from the X-rays was not so pliable as that from Finsen light and was apt to become telangiectatic and disfiguring. He had found that radium was capable of destroying

individual foci of lupus, but on account of the small quantities of this precious substance at our disposal it could not be considered as a practical form of treatment. With regard to the value of high frequency currents in the treatment of lupus, Dr. Sequeira expressed a most guarded opinion. He had found them of service in the healing of ulcerated surfaces.

He next discussed the treatment of rodent ulcer, and expressed the views of most of the members when he stated that the X-rays were *par excellence* the best form of treatment. When a definite "cartilaginous" border or nodules were present, in order to save time he scraped these before applying the rays.

With regard to the treatment of Lupus erythematosus by X-rays or Finsen light, his experience, like that of others, was disappointing. He referred, in conclusion, to the benefit which had been derived in cases of Mycosis fungoides in the tumour stage from exposure to the X-rays.

In the discussion which followed, Dr. BROOKE agreed with most of the views expressed by Dr. Sequeira, but differed from him in a few details. He corroborated Dr. Sequeira's statement with regard to the inefficiency of the Lortet-Genoud lamp, and observed that in his department at Manchester that lamp was now rarely used. He thought that the value of the X-rays in the treatment of Lupus vulgaris had been rather minimised by the previous speaker, and that those rays were indicated not only in ulcerated patches of Lupus of the face but whenever large surfaces were affected. He considered that the scar which resulted was usually a good one, and that if the misfortune of a telangiectatic scar did occur it could be very easily made presentable by plugging the vessels by electrolysis. With regard to the treatment of the hard edge of a rodent ulcer, in association with the employment of the X-rays, he was in the habit of scarifying it, and in this way had obtained excellent results.

Dr. J. M. H. MACLEOD heartily thanked Dr. Sequeira for his helpful paper, and he agreed with him that when the Lupus affected the face, and was small in area and not ulcerated, the Finsen light gave the most satisfactory results. Like Dr. Brooke he had been satisfied with the value of the X-rays in large non-ulcerated patches. It was not his experience, however, that the telangiectatic scars which were occasionally produced could be easily improved by electrolysis, but rather that they were most intractable, and that though small vessels

might be plugged by electrolysis, new ones seemed to form and the larger vessels seemed to persist in a state of dilatation in spite of repeated attempts to destroy them. He referred to the fact that the danger of producing these unsightly scars was diminishing with the increasing knowledge of the best type of tubes to use for specific purposes, and with the possibility of measuring the dosage of irradiation. Of the various surgical methods he considered that excision, followed by "deep-grafting" where necessary, gave the most satisfactory results. He considered, however, that it was not so much the method as the manner in which it was carried out which determined the result, and that with the introduction of the newer methods of treatment the patient as well as the operator had been led to appreciate the great importance of continuous treatment under constant supervision, and that this fact alone has been a great help in the production of better results than formerly. He advocated also the employment of various forms of treatment concurrently or seriatim, and the importance of regarding the different methods as adjuncts to the treatment, the judicious combination of which was often of the utmost service. For example, vegetating forms of lupus were readily amenable to treatment by scraping or cauterisation followed by exposure to the X-rays, while in the case of rodent ulcer the treatment by these rays was greatly facilitated if the cartilaginous border were reduced by ironing with a fine-pointed Paquelin cautery at a dull red heat, and in the removal of the deep-seated foci of tuberculosis which persisted after X-ray or even light treatment the use of the cautery was of great value. He spoke also of the utility of radium in the case of lupus affecting the nasal mucosa and its remarkable action in drying up discharges, healing ulcerations, and relieving pain. In the case of small rodent ulcers radium was equally valuable, and in employing it he tried as far as possible to avoid any definite inflammatory reaction.

Dr. HALL-EDWARDS made special reference to the value of erythrocyne in augmenting the action of the actinic rays. He found that the most satisfactory way of causing it to act was by cataphoresis. He also spoke of the near prospect of being able to use X-ray tubes with impunity now that the dosage of the potent rays could be measured.

Dr. S. E. DORE said that the Finsen treatment by concentrated light

had now passed through its period of probation, having been in use in Copenhagen for eight years and in this country for four years. He thought that for purposes of treatment cases of Lupus vulgaris might be conveniently considered under four groups:

(1) Cases of small extent, in which no scar-leaving operation had been performed, *i. e.* in which penetration of the light was not hindered by the presence of cicatricial tissue. In his opinion Finsen's method was the best in such cases, because it gave the best scar and was by far the most conservative. X-rays also gave excellent results, but the time required was longer on account of the difficulty of eliminating residual nodules, and a telangiectatic scar might be produced.

(2) Cases of small extent, with a dense fibrous cicatrix resulting from previous treatment. In these cases treatment by Finsen light in the ordinary manner was apt to be tedious. Repeated applications to a single area were advocated, the part not being allowed to heal between each sitting. This method was painful, but better penetration and more rapid results were obtained.

(3) Cases of large extent (affecting the greater part of one or both cheeks, or one fourth to one third of the whole skin of the face), in which the lupus was relatively superficial or the nodules more or less discrete. In this class it was better to reduce the disease to its lowest terms with X-rays and to treat the remaining nodules with Finsen light. The two methods might also be employed concurrently, the whole area being exposed to X-rays and the margin treated by light.

(4) Cases of large extent in which there was a dense mass of lupus infiltration and fibrous tissue. Some of these cases proved very intractable, and neither X-rays nor Finsen light made much impression on them. Vigorous preliminary surgical measures, such as excision or scraping, followed as soon after as possible by X-rays, and again if necessary by Finsen light, would considerably shorten the duration of treatment in such cases.

In mucous membrane lupus the initial improvement under X-rays was very great, but it was difficult to get permanent results. The galvano-cautery should not be entirely discarded. Lupus of the upper parts of the nasal fossæ was inaccessible to Finsen or X-rays, and radium might be used in these cases.

Mr. PERNET, in speaking of the surgical modes of treatment of lupus, recorded excellent results which he had obtained by scarifica-

tion, and remarked on the power of the X-rays to reduce the granuloma of leprosy.

Professor GILCHRIST, in discussing the utility of the X-rays in treatment, deplored their employment in cases of epithelioma of the lips and tongue, which he regarded as a dangerous and temporising procedure, while Dr. GAMLEN, of West Hartlepool, on the other hand, reported an excellent result which he had obtained in such a case from exposures to the rays.

Dr. GRAHAM LITTLE remarked that up to the present date the treatment of many intractable skin diseases with X-rays had been unsatisfactory in the duration hitherto required by the treatment. It was to be hoped, however, that, following the brilliant work of Bécclere and other French operators, an accurate dosage and much curtailed application of X-rays would be possible in the near future. He considered that for multiple lupus, in which the tediousness of X-rays treatment made that impossible, a great resource was at hand in the administration of tuberculin with the scientific methods and precautions adopted and advocated by Dr. Wright.

Dr. HARTZELL said that he had recently had under his care a typical case of Paget's disease of the nipple, and after some months' treatment by X-rays a symptomatic cure of the skin lesions had been obtained, but within the past few months a breast tumour had developed which would necessitate a surgical operation. He also referred to the X-rays as offering a cleanly and convenient means of temporarily getting rid of the eruption of psoriasis, but found that relapses occurred after it just as frequently as after other methods of treatment.

The PRESIDENT remarked on the recent work which had been done in the treatment of ringworm of the scalp by the X-rays, and believed that they were the coming treatment for this most resistant affection; and Dr. SEQUEIRA then closed the discussion.

Dr. HALL-EDWARDS next read an important paper on *X-ray Dermatitis*, based on the condition of his own hands caused by frequent exposure to the rays.*

In reference to this paper, Dr. RADCLIFFE-CROCKER spoke of a case which had been under his care in which a large X-ray ulcer had been

* This paper will be published in full in a subsequent issue.

produced on the abdomen as the result of a long exposure to the rays for photographic purposes. As this ulcer had refused to heal he had been tempted to have it excised. This operation was followed by little, if any, benefit, as the resultant scar soon broke down. He mentioned this as he wished to "sound a note of warning" against attempting to obtain healing by surgical means in a tissue which had been so greatly devitalised by the rays.

Dr. NORMAN WALKER dwelt on the necessity of using every possible means to prevent the occurrence of a dermatitis in X-ray operators, and referred to the recklessness which so many of them exhibited to the consequences of exposure to those dangerous rays.

Dr. V. H. RUTHERFORD exhibited a case of *Urticaria pigmentosa* in a boy aged 17 years, which had only appeared about three years before. He demonstrated sections of the case and coloured drawings of them showing the characteristic deposit of mast-cells chiefly located in the upper layers of the corium. Several of the members referred to cases which had also appeared comparatively late in life, the usual age of incidence being in the first six months.

* At the third session of the section, Dr. MARTIN showed a case of *Hebra's sarcoma* of ten years' duration. The diagnosis was not confirmed by microscopical examination. It was evident that the disease was subepithelial in its seat, and, so far as concerned its evolution, it differed widely from a true sarcoma. It was characterised by the formation of livid blue elevated patches, associated with purpuric lesions, scattered over the lower and upper limits. The ears also were slightly affected. Dr. EDDOWES regarded it as a case of Lichen planus. No other opinion was offered.

The subject for discussion at the session was "The Relative Importance of the Bacterial and other Factors in the Causation of Skin Diseases," and was opened with a paper by Dr. ARTHUR WHITFIELD.

He divided the parasitic diseases into four classes :

(1) Diseases which were obviously contagious, and in which direct relationships could be traced between the parasite and the cutaneous reaction, *e.g.* ringworm and favus.

(2) Diseases which, while contagious, required a specific soil before

* For the notes of the third session of the meeting the editors are indebted to Dr. Leslie Roberts.

the fungus could successfully grow in the skin, *e. g.* Pityriasis versicolor.

(3) Diseases in which the parasite was obvious, such as the animal parasitic diseases, scabies, and pediculosis.

(4) Diseases which, while associated with the presence of micro-organisms, were doubtfully contagious, *e. g.* seborrhœa, acne. In these cases it was a matter of dispute whether the organism was a saprophyte or parasite.

Dr. Whitfield agreed with Sabouraud that the mere presence of micro-organisms in the skin was no proof that they were of a pathogenic nature; they must be in a condition of active growth before their toxins could be secreted. Three morphologically different micro-organisms were commonly found in the human skin: the micro-bacillus, the bottle-bacillus, and the gray coccus, which did not liquify gelatine. As regards the micro-bacillus, evidence had failed to establish its position among the true pathogenic parasites. He had examined the skin of the faces of six negroes. Although none of them suffered from acne he had found the micro-bacillus in five of them. He did not think that this organism was the cause of seborrhœa. It could not be positively stated that it was the cause of the comedo, although it was constantly present in this modification of the pilo-sebaceous duct. In respect to its relation to alopecia, we could not affirm that it was the actual cause, because this organism was habitually present in the scalp, and grew luxuriantly, although the disease were absent. The bottle-bacillus was an *habitue* of the horny layer of the human skin. The non-liquefying coccus was a common denizen of the skin; it was commonly found in the moist secretions. It was best cultivated in fluid media; its experimental inoculation on the skin had not been followed by positive results.

Dealing with the second part of his paper, namely, the non-parasitic reactions, Dr. Whitfield believed that these reactions were the result of internal and external factors working together. He was of opinion that absorption of toxic bodies from the alimentary canal played an important part in the genesis of these diseases.

The paper was accompanied by a demonstration of microscopic lantern slides.

In the discussion which followed—

Professor GILCHRIST laid stress on the fact that the American surgeons had found it practically impossible to sterilise the skin. He had examined 250 cases of acne, and had always found the "acne bacillus" present. This bacillus was, apparently, morphologically identical with the micro-bacillus of Sabouraud. He had cultivated it on acid glycerine agar, and had obtained sixty consecutive pure cultivations. He found it to be pathogenic in some animals, its inoculation having been followed by peritonitis in the guinea-pig. Professor Gilchrist regarded it as the actual cause of acne. He also pointed out that this acne bacillus answered to the agglutination test.

The PRESIDENT said that we ought to distinguish between the comedo and the seborrhœic filament. The former was, as Sabouraud had pointed out, a cystic dilatation of the outer third of the pilosebaceous duct, and was accompanied by parakeratosis, the comedo itself being largely made up of horn-cells. He could not agree with Sabouraud in regarding the micro-bacillus as the cause of Alopecia areata.

Dr. DORE said that he had not been able to cultivate the micro-bacillus from Alopecia areata. It was an organism sensitive to soil, and required certain chemical conditions before it could be artificially grown.

Dr. GRAHAM LITTLE referred to Professor Wright's treatment of Acne pustulosa by injections of streptococcic serum. He observed that while the serum appeared to arrest the suppuration it had no influence on the acne.

Dr. LESLIE ROBERTS said that it was a matter of surprise to him that dermatologists laid so little stress on the influence of heredity on seborrhœa and its various consequences. If we would examine, not only the sons and daughters, but also the mothers and fathers, we could not fail to see how close was this hereditary influence. He thought that we should clearly distinguish between seborrhœa itself and its consequences. The former was an exfoliative process and not a secretion; complete anatomical continuity could be traced between the cells of the sebaceous glands and the fatty, horny material in the ducts. Whether the sebaceous glands were large or small, and whether the output of sebaceous matter was much or little, was, in his opinion, determined in the man by hereditary influences. He believed

the micro-organism played an important part in the various pathogenic reactions which followed the accumulation of spent oil in the skin.

Drs. EDDOWES, DOUGLAS HEATH, and KENNETH WELLS also spoke, and Dr. WHITFIELD replied.

Professor GILCHRIST then read a paper on *Erysipeloid* with a record of 323 cases.

The name "Erysipeloid" given by Rosenbach appeared to refer to the same kind of eruption as was described by Marrant Baker as "Erythema serpens." It was characterised by the formation of bluish-red erythematous patches, which usually started in the region of an injury. They spread at the margins and paled in the centre, so that they acquired a ring form. The disease spread over both hands and disappeared in a few weeks without desquamation. In 317 of his cases the disease had followed crab bites, but six were due to other causes. He had seen it follow the cleaning of pig's feet. He had never seen it result in suppuration or lymphangitis. Rosenbach had cultivated an organism which he first thought to be a coccus, but which proved eventually to be a mould fungus. From pure cultivation of this organism he succeeded by inoculation in reproducing the disease in his own skin. Gilchrist found on microscopic examination that the disease consisted in an acute inflammation of the whole corium; polynuclear leucocytes were numerous; the epidermis was thickened; there were no micro-organisms demonstrable in the sections. Inoculation of blood serum with blood from the erythematous patches remained sterile. In some cases growths were obtained of *Staphylococcus albus*. Experiments with smears were negative. The results of attempts to reproduce the disease by experimental inoculation were also negative. Gilchrist believed that the disease was probably produced by a special ferment. There was a natural tendency to spontaneous recovery, and this was aided by the use of salicylic plasters or carbolic lotion.

In the discussion which followed, Dr. WILLMOTT EVANS said that he had met with several cases which appeared to correspond with those described by Professor Gilchrist. They were characterised by the formation of ringed erythematous patches on the fingers, which disappeared spontaneously.

Dr. DOUGLAS HEATH had seen cases which had lasted two months. The erythematous eruption was sometimes associated with bullæ.

The PRESIDENT said he had never met with cases of erysipeloid in his own clinic, but that they were not infrequently met with in St. Bartholomew's Hospital, which was near the meat market. The cases described by Marrant Baker as *Erythema serpens* were due to the handling of dead meat.

Dr. WHITFIELD said he had not yet come across a case in his clinic.

Dr. HARTZELL, of Philadelphia, said that he had seen cases following the handling of fish; he had also observed it to follow the bite of a rat.

Dr. LESLIE ROBERTS read a paper* on the *Non-parasitic Cutaneous Reactions*.

Dr. NORMAN MEACHEN read a communication on *The Influence of Peripheral Nerve Irritation on Diseases of the Skin*. He specially referred to Alopecia areata which he regarded as arising out of various forms of peripheral irritation.

The reading of this paper on peripheral nerve irritation brought the active work of the section to a close.

A special feature of the meeting was the collection of photographs and coloured drawings illustrating cutaneous affections which were exhibited in the pathological museum. Among the contributors to it was the President, who sent a large number of coloured drawings of various skin diseases, such as the tuberculides, Dermatitis herpetiformis, Herpes gestationis, double Herpes zoster, the acuminate and plane phase of Lichen planus, Molluscum contagiosum, and Mycosis fungoides. Dr. Radcliffe-Crocker exhibited drawings of ulcerating morphœa, Acne agminata, multiple epithelioma, re-vaccination psoriasis. Dr. Graham Little showed illustrations of Acanthosis nigricans, Asphyxia reticularis, and Lichen scrofulosorum. Dr. Sequeira sent a series of photographs illustrating skin affections before and after treatment by photo-therapy and X-rays. Dr. J. M. H. MacLeod showed a coloured drawing of Granulosis rubra nasi and photographs of cases of rodent ulcer before and after treatment by radium. Dr. Abraham contributed a drawing of a case of a tuberculide; and Dr. Eddowes showed one of a benign cystic epithelioma of the face, and another of a curious infection of the follicles of the face.

It remains now to refer to the social aspect of this meeting. The

* This paper will be published in a subsequent issue.

unusually large number of members had greatly taxed the resources of Oxford, and what with the inclemency of the weather on the first day of the sectional meetings, and the unprecedented numbers, it was wonderful that the arrangements were as satisfactory as they were. Credit is due to the secretaries, Drs. Ernest Mallam and Edward Stainer, for the detailed arrangements of the dermatological section. A number of the members of this section were billeted in Queen's College, and the only regret which was generally felt was that our American colleagues had not been there as well; for in this way a valuable opportunity might have been given of discussing with them the interesting questions raised at the meetings, either in hall or in the cloisters of the college.

HISTOLOGICAL NOTE.

STAINING OF ELASTIN, AND THE USE OF COUNTER-STAINS.

BY L. H. HUIE.

A good nuclear counter-stain to the acid orcein method of Tüntzer and Unna for elastin is obtained by toluidin blue used in the following way :

Sections, after removal of paraffin by xylol, and the xylol by alcohol, are left in Tüntzer's acid orcein for 24-48 hours at ordinary temperature, or in Unna's acid orcein for 12-24 hours in an incubator at about 37° C., rinsed in absolute alcohol, then in 50 per cent. alcohol, and lastly transferred to water before being placed in a 1 per cent. watery solution of toluidin blue for three minutes, again washed in water, dehydrated quickly with absolute alcohol, cleared in xylol or bergamot oil, and mounted in balsam.

The elastic fibres are stained very black; nuclei are a light blue; collagen is slightly stained by the acid orcein; and muscle-fibres become grey. The picture is a good one for photography.

Eosin may be introduced to colour the collagen, red blood corpuscles, etc., thus:—The sections, after the preliminary staining in acid orcein and the alcoholic and water baths, are placed for fifteen minutes in a 1 per cent. watery solution of eosin, washed in water

and transferred (according to Mann's method for ordinary work) to a 1 per cent. toluidin blue solution for five minutes, washed in water, dehydrated in absolute alcohol till the red eosin stain becomes apparent, cleared and mounted as before.

These combinations work well with material fixed in corrosive sublimate, in alcohol, in Müller's fluid, and also in the following, which is an exceedingly good stain fixative.

Alcohol, 70 per cent.	.	.	.	90 parts.
Glacial acetic acid	.	.	.	3 „
Formaline	.	.	.	7 „

I am unaware of the originator of this excellent rapid and penetrating mixture.

CURRENT LITERATURE.

A CASE OF LICHEN VERRUCOSUS OF THE SCALP. EMERY and UMBERT. (*Annales de Derm. et de Syph.*, January, 1904, p. 41.)

THE exceptional localisation of the disease in this case makes it worthy of record. The patient was a man of 47, and he had noted the development of the patch on the scalp a year before he came under the observation of the writers. The first symptom was that of severe itching on the middle and upper part of the occipital region of the scalp; this portion of skin also felt thickened. Some days later he had violent itching on the inner surfaces of the legs. When seen he had a patch the size of a ten centime piece on the scalp; the hair was nearly entirely denuded with the exception of a few short and broken stumps. The surface was of a dirty-grey colour, covered with very adherent scales and with numerous small white spots regularly distributed over it, apparently corresponding to the orifices of follicles or sweat-glands. The patch was of firm consistence, almost hard to the touch, and very dry. A little above and to the side of the main patch were two other similar but smaller lesions. On the internal surface of both knees there were characteristic patches of Lichen planus verrucosus. A histological examination of the lesion on the scalp presented no unusual features.

E. GRAHAM LITTLE.

RESEARCHES ON THE ELIMINATION OF MERCURY IN THE URINE. CARLE and BOULUD. (*Annales de Derm. et de Syph.*, Feb., 1904, p. 97.)

THIS research has an important bearing on the therapeutic measures in vogue for the administration of mercury, medication by the mouth, by inunction, and by injection (soluble and insoluble salts) being considered. The previous literature

abounds in contradictory results. Thus, according to various authors, mercury was found to make its entry into the urine at the following periods after use :

In the case of pills	from 5 to 11 days.
Inunctions	„ 1 „ 12 „
Injections (soluble)	„ 1 „ 24 hours.
„ (insoluble)	„ 1 hour to 4 days.

The persistence of the mercury in the urine also varied as follows :

For pills	from 1 to 6 weeks.
„ inunctions	„ 1 month to several years.
„ injections (soluble)	„ 2 to 6 months.
„ „ (insoluble)	„ 2 „ 12 „

The method pursued by the authors is thus detailed: The urine was always taken at a fixed time. The specimen was heated in a water-bath with hydrochloric acid, to which mixture, when hot, potassium chlorate in small quantities was added until the mixture became a pale yellow. The mixture was then filtered after cooling and an electric current passed through it for one hour, the terminals consisting of iron (positive pole) and platinum (negative pole). The platinum was then removed, washed in ether, dried at a low temperature, and introduced into a long, narrow test-tube. This was held horizontally in a Bunsen flame until the latter became coloured yellow. The tube was then cooled. The presence of mercury was indicated by a greyish ring round the tube in the position of the platinum; its presence was demonstrated by volatilising iodine in the tube, upon which the greyish ring became transformed into a brilliant red deposit of iodide of mercury. The results obtained by the authors with this method are tabulated and are thus given :

Pills.—Mercury was found in the urine within from 3 to 24 hours, and persisted for 1 to 5 days.

Inunctions.—Mercury appeared within 2 to 11 hours, and persisted 1 to 8 days.

Injections (soluble).—Mercury appeared within 3 to 24 hours, and persisted from 3 to 6 days.

It was noted that even in the same individual, with the same dose and the same form of medication, the results varied greatly from time to time as to the time at which mercury appeared. The elimination when once begun, on the other hand, seemed as a rule to be completed in a very regular manner. A further interesting observation was made that in some cases of inunction no mercury appeared in the urine at all; and this is in consonance with several experiences recorded in which inunction effected no results. It is to be assumed that the skin did not absorb the drug in these cases. To elucidate this point inunction was applied to forty-two syphilitic patients at the Hospice des Chazeaux. In only one of these was the absence of mercury in the urine demonstrated, and in this patient the syphilitic lesions persisted unchanged by a treatment lasting three weeks.

E. GRAHAM LITTLE.

A CASE OF LARVA MIGRANS. LENGLET and DELAUNAY. (*Annales de Derm. et de Syph.*, Feb., 1904, p. 107.)

THE patient was a joiner aged 39, who had had a boil on his left calf three weeks previously, which he had treated himself by applying to the surface a compress composed of living edible snails, the shells being removed before

application. This treatment was continued for ten days, when the patient went to a hospital, where the pustule was cauterised by thermocautery and covered with a wet dressing. Three or four days later the furrows appeared. He was then seen by Brocq, in whose service the writers are assistants, and a diagnosis of larva migrans was made by that teacher. There was a large patch on the calf of lymphangitis, the size of the palm of the hand, upon which were numerous furrows, like huge burrows of scabies, advancing with extraordinary rapidity. Repeated search for the parasite failed to discover this, and histological examination of a burrow also had a negative result as regards finding a parasite. The authors note that, whereas there are fairly numerous clinical descriptions of cases of this kind, an actual parasite has been found only by one or two Russian authors. In the present case the snails are regarded as having introduced the parasite, but without demonstrable proof.

E. GRAHAM LITTLE.

HYPERKERATOSIS OF THE PALMS OF PROFESSIONAL ORIGIN IN COBALT ORE WASHERS. MARGAIN. (*Journal des Maladies Cutanées et Syphilitiques*, tome xvi, No. 2, February, 1904, p. 94.)

THE author concludes from his observation of three cases that there occurs among the workers employed in washing the cobalt ore a professional affection of the hands consisting of a hyperkeratinisation of certain palmar regions. It is present in three forms:—(a) A crater-like erosion with borders and floor, irregular, crumpled, brownish, and formed of horny matter. These erosions usually remain dry, but may become purulent and throw off a portion of their floor. (b) A general thickening of the skin of the whole palm, which becomes callous and rough, with accentuated folds. (c) A cribriform condition of the skin which appears as though perforated by a number of needle holes of about 1 millimetre in depth and from which one can sometimes extract particles of ore. They are usually situated over the metacarpo-phalangeal articulations and along a line joining the upper end of the fifth metacarpal to the metacarpal-phalangeal articulation of the index finger, *i.e.* at the points of pressure of the handle of the spade. It is probable that the ulceration is derived from the cribriform condition by fusion of the perforations. Application of salicylic ointment seemed to be successful when the cause of the dermatosis was suppressed.

H. G. ADAMSON.

LICHEN PLANUS WITH NAIL LESIONS AND AFFECTION OF THE PALPREBRAL CONJUNCTIVA. GAUCHER and DRUELLE. (*Journal des Maladies Cutanées et Syphilitiques*, tome xvi, No. 2, February, 1904, p. 108.)

THE patient presented a typical and generalised eruption of Lichen planus, with chief localisation on the limbs and anal and congenital regions. On the dorsal surface of each finger was a verrucose placard sending processes along either border of the nail. The nails themselves showed longitudinal fissures and flutings and occasional punctiform depressions. The fissures were superficial, and none extended through the thickness of the nail. The longitudinal flutings were only slightly raised. Each inferior conjunctiva presented a whitish horizontal band with sharply defined outline, situated midway between the

ciliary margin and the globe of the eye, and in appearance altogether analagous to those seen on the mucous membranes of the mouth. There was no ocular pruritus.

H. G. ADAMSON.

PAPULAR CUTANEOUS TUBERCULOSIS FOLLOWING MEASLES.

MM. GAUCHER and DRUELLE. (*Journal des Maladies Cutanées et Syphilitiques*, tome xvi, No. 2, February, 1904, p. 108.)

THE patient was a boy aged 8½ years. Five weeks ago he had an attack of measles, and two weeks later, while still febrile (39° C., evening) there appeared upon the limbs, abdomen, and cheeks an eruption of small papules; fresh papules came out until it was almost generalised. The lesions were raised, convex, violaceous, or dull red, non-pruritic elements of the size of a small lentil. Most presented a tiny central, brownish, adherent crust, enchased in the papule, and apparently the result of the desiccation of a minute quantity of pus. On the front of the right wrist were a few distinctly papulo-pustular elements. The lesions were most numerous on the forearms and wrists and front of thighs. On the trunk and other parts of the limbs they were more sparse. There were two or three papules in each palm.

There was slight enlargement of right inguinal glands and axillary glands, and a suspicion of tuberculosis at apex of left lung.

Diagnosis.—Cutaneous papular tuberculosis (acnitis) consecutive to measles. The patient died about three weeks later of a rapid tuberculous meningitis. The cutaneous lesions remained unchanged.

The writers conclude that the case was one of cutaneous tuberculosis with papular lesions corresponding to those described under the name of folliclis, and evolving as a sequel to measles. They consider that the fatal termination by meningitis demonstrated the tuberculous nature of these lesions, "in which neither the bacillus of Koch nor the usual anatomico-pathological appearances of tuberculosis have yet been found."

[It may be questioned whether MM. Gaucher and Druelle are correct in regarding the lesions in this case as "tuberculides" rather than true tuberculous lesions due to the actual presence of the tubercle bacilli. The majority of published cases of disseminated tuberculosis following measles have been examples of true lupus. Such were those recorded by Besnier, Hutchinson (Lupus psoriasis), Colcott Fox, Du Castel, Crocker, Adamson, Morris, and Little.

The case of Gaucher and Druelle is comparable with the acute type of multiple tuberculous lesions of Leichtenstern and Pelagatti. In Leichtenstern's case the lesions were smaller hempseed-sized papules, some with a tiny central vesicle, pustule, or crust, and the one by Pelagatti hempseed-size papules without central pustule. Both Leichtenstern and Pelagatti found numerous tubercle bacilli in the lesions.]

H. G. ADAMSON.

TABES OF SYPHILITIC ORIGIN CURED BY INTENSE AND PROLONGED MERCURIAL TREATMENT. H. OLTEAMARE. (*Journal des Maladies Cutanées et Syphilitiques*, tome xvi, No. 3, March, 1904, p. 169.)

MUCH attention is at present being directed on the Continent to the question of the curability of tabes by large doses of mercury. Oltramare publishes this case

as an undoubted instance of tabes not only ameliorated, but in which the cure, obtained with great trouble, seemed to be maintained.

The patient, a valet aged 50, had contracted syphilis in 1890. There had been intermittent specific treatment. In 1901 he had some urinary incontinence, and the patella reflexes were absent. In 1903 he presented all the classical symptoms of tabes; Romberg, Westphal, Argyll-Robertson signs, lightning pains, diminution of hearing and of vision, bladder troubles, muscular asthenia, and loss of genital functions. Under treatment by high doses of mercury by injection many of these symptoms disappeared and all of them were ameliorated. The improvement was still maintained at the last report in 1903.

The treatment had consisted of four successive courses of intra-muscular injections of salicylate of mercury in 0.05 gm.—0.075 gm. doses. The treatment extended over a period of 230 days, the total quantity of mercury administered being 2.44 gm. There were no untoward symptoms beyond frequently great lassitude and discouragement, which required often much effort to overcome.

H. G. ADAMSON.

[See *B. J. D.*, 1904, p. 116, for abstract of important monograph by Leredde on the curability of tabes by mercurial injections.]

STRIÆ PATELLARES FOLLOWING TYPHOID FEVER. Dr. G. FISCHER. (*Münch. Med. Wochenschr.*, March 15th, 1904, p. 482.)

DR. FISCHER had under his charge, twenty-five years ago, a boy aged fourteen, suffering from typhoid fever, who, in the course of the illness and whilst still under observation, developed on both thighs, immediately above the patella, a number of horizontal and parallel brown striæ about 3 to 4 cm. long bearing a close resemblance to fresh lineæ gravidarum. There was no knee affection, or other apparent cause to produce tension of the skin.

Since then he had encountered a number of instances of similar scars in various patients, all of whom had suffered from typhoid fever and most of them when young. Possibly there had been a want of proportion between the growth of the bones and soft parts. The first patient had grown rapidly whilst lying in bed. Some observations by Jarisch and Schultze are mentioned in support of this idea. Subsequent publications have led him to wonder if these striæ might not be tropho-neurotic in character. Nonne in 1889 observed that in a patient suffering from typhoid fever the patella reflex disappeared, and was able to show by a post-mortem examination a neuritis of the crural nerve, the rest of the nervous system being intact. Remlinger found by examining one hundred soldiers suffering from typhoid that the patella reflex was normal in 22, increased in 32, weakened in 17, and absent in 29. Striæ are, however, nowhere included under trophic disorders. It is possible to imagine various causes as contributing to their production—rapid growth, badly nourished skin, and lastly the drawing up of the knees against the body, a position so much affected by young children.

W. B. W.

THE SURGICAL TREATMENT AND HISTOLOGY OF RÖNTGEN ULCERS. Drs. GUSTAV BAERMANN and PAUL LINSE. (*Münch. Med. Wochenschr.*, May 24th, 1904, p. 918.)

THE authors mention the experience gained in Professor Neisser's clinic, that in the treatment of lupus cases, in which the disease occupies considerable tracts

of skin. Better therapeutic results are obtained by exciting a strong Röntgen reaction than by using milder applications with a view to avoiding such reactions altogether. As a natural consequence of the method followed they had to deal with a number of ulcerations caused by the rays, which for months together resisted the ordinary means for healing wounds. To meet this difficulty they covered the ulcer with a skin flap taken from a neighbouring part, leaving it still attached by a bridge of skin to guarantee its proper blood supply. In this way they were able to obtain rapid healing of the hitherto intractable ulcers.

Eight cases are reported and some photographs inserted to illustrate the good effects obtained. In one of the cases (No. 7) a large flap was taken from the breast to cover an extensive ulceration of the face. Unfortunately, the greater part of the flap perished; but some days later the surface became covered with granulations, so that they were able to apply Thiersch's graft with gratifying success.

Their histological investigations of the Röntgen ulcers show that the chief changes occur in the blood-vessels and connective tissue. The superficial vessels disappear. In the deeper layers the larger vessels show a marked endarteritis with narrowing of the lumen. The veins also show similar changes.

The connective tissue has a characteristic swollen, frayed-out appearance. It stains badly and has undoubtedly undergone a degeneration, more particularly in the neighbourhood of the elastic fibre nets. The muscles showed little change, only an occasional collection of leucocytes. The authors also examined at different stages ulcers that had been covered with transplanted skin. They found that numerous new vessels grew down from the flap, so that the ulcer became properly vascularised. The leucocytes disappeared and the connective tissue in the course of from 4 to 8 weeks assumed the aspect of ordinary scar tissue.

As a rule the connecting bridge of skin was severed after 10 to 12 days, by which time the new vessels were sufficient for its nourishment. The authors' impression was that there was no inhibition of epithelial growth as often supposed. The epithelium grew actively at the periphery, and only failed to extend over the ulcer by reason of the difficulty experienced in gaining a lodgment on its damaged surface.

W. B. W.

THE TREATMENT OF PSORIASIS BY THE GENERAL PRACTITIONER. Dr. DREUW. (*Münch. Med. Wochenschr.*, May 17th, 1904. p. 879.)

Dr. DREUW recommends an ointment for use in cases of psoriasis, with the following ingredients:

Ac. Salic.	.	.	10,0
Chrysarobin			
Ol. Rusc.	.	.	āā 20,0
Sapon. virid			
Vaseline	.	.	āā 25,0

The colour is dark brown or brownish black, being naturally deeper in proportion to the amount of alkali contained in the soap and the consequent conversion of chrysarobin into the chrysophanate of the alkali. The ointment is rubbed into the patches with a stiff brush night and morning for from 4 to 6 days. After each application some starch or zinc powder can be dusted on. After

4 to 6 days the ointment is discontinued for an interval of from 1 to 3 days, during which daily baths are taken and vaseline applied. The ointment has been tried by Professor Lassar and Dr. Unna with great success. A plaster mull has been made by Beiersdorf.

W. B. W.

STRIÆ CUTIS DISTENSÆ. Professor HEINRICH KÖBNER. (*Münch. Med. Wochenschr.*, May 24th, 1904, p. 928.)

THE author refers to Dr. Fischer's communication entitled "Striæ Patellares Following Typhoid Fever," an abstract of which appears in this Journal. He remarks that neither Nonne nor Remlinger mention an instance in which the striæ and the disappearance of the patellar reflex occur in the same subject. He also comments on the unsuitability of the name chosen, seeing that Fischer himself had noted similar striæ on the lumbar region of girls who had not been unusually fat. Professor Köbner then describes two cases that had come under his notice in girls, aged 13 and 14 respectively, both of whom were suffering from typhoid fever. He was able to excise a stria from the second case, and the histological details are given in full. Taking the histological and clinical evidence together, he comes to the conclusion that the striæ are due to tension of the skin, produced in various ways. Rapid growth of the long bones is known to follow typhoid as well as other fevers. The patients, too, are apt to lie with their legs strongly flexed on the body. Cases are quoted in which the striæ appear above the patella in other diseases than typhoid. One described by Chevallereau followed a left-sided colitis. The patient was lying for eight months in a Bonnet's wire splint which apparently allowed free movement of the right leg only. The striæ developed on the right thigh. Sieveking describes a case in which the striæ followed an attack of cerebro-spinal meningitis. Mention is made of two cases described by A. Kerstein from Senator's Polyclinic in which similar striæ appeared on the trunk, following a long-continued debilitating perityphlitis in one instance, and a chronic dysentery in the other; and also of three cases, recorded by A. Gilbert and others, of disease of the lung in which the striæ appeared on the healthy side and apparently were due to the expansion and increased movement consequent on compensatory breathing.

W. B. W.

CHRYSAROBIN. PAUTRIER. (*Rev. Prat. des Mal. Cut., Syph. et Ven.*, October, November, and December, 1903.)

M. PAUTRIER discusses in three short papers the therapeutical effects and mode of action of chrysarobin. He points out that it was introduced to European notice in 1875 by Dr. Blanc, of the British Army, who had seen it used by the natives of India for the cure of ringworm. Dr. Palasne Champeaux, of the French Navy, about the same time was using it in Cochin China. Balmano Squire in England and Besnier in France introduced it into dermatological practice. In Germany chrysarobin is more generally used; in France chrysophanic acid. Therapeutically the action of these is almost identical; but theoretically the latter, being already an oxidised product, should be less active when acting as a reducer, but against this it is a more stable, crystalline, definite

product. It is soluble in benzine, chloroform, and alkaline solutions. It may be used in a 2 to 10 per cent. strength in the form of a paste, varnish, or pencil.

Its mode of action.—The transitory application of chrysophanic acid to the skin produces no reaction; but if it be applied to the same spot for several days in succession, about the third or fourth day an erythema appears, accompanied by more or less smarting of the place touched. In psoriasis one hopes to see this chrysophanic erythema, for, as Godart says, "no erythema, no cure." The erythema appears most readily in individuals with a damp moist skin, especially if the part touched be rich in sweat-glands. Pouchet and Godart offer the following explanation of this: The sweat, if examined at the time of its emission, is found to be of an acid reaction. This acidity is due to a volatile fatty oil which rapidly evaporates and gives place to an alkaline reaction. The sweat, having become alkaline, plays the part of an alkaline solution in which we know chrysarobin is readily soluble, and so the presence of erythema is a proof that the drug is commencing to act. A practical point arising from this is to forbid the use of any soap or alkaline bath when once the erythema has started, or the erythema and irritation may become universal. The red colour, vivid at first, becomes violet, then brown, and finally the epidermis exfoliates as fine furfuraceous scales.

Hodara says that histologically the mode of action is as follows:—If chrysophanic acid of medium strength be applied to the normal skin necrosis of the granular layer and superficial parts of the Malpighian layer takes place and the products are given off in the form of pigmented scales. With a stronger solution the phenomena are naturally more marked, and consist of a well-defined œdema of the epidermis, inter- and intra-cellular, ending in the formation of true vesicles (sero-leucocytosis). The whole of the Malpighian layer, which has been the site of these phenomena, is thrown off in the form of scales and yellow crusts. A large number of cells in a state of karyokinesis destined to form the new granular layer are to be seen in the epidermis subjacent to the necrosed crusts, as well as a large accumulation of pigment. In the corium one finds œdema, marked dilatation of the vessels and lymph-spaces, a thickening of the vascular walls, together with foci of infiltration of connective-tissue cells.

A. SHILLITOE.

HERPES ZOSTER OF THE RIGHT FIFTH NERVE, 2ND DIVISION
TO ILLUSTRATE DR ARTHUR HALL'S CASE.

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ON THE NON-PARASITIC CUTANEOUS REACTIONS.*

By LESLIE ROBERTS, M.D.,

*Hon. Dermatologist to the Liverpool Royal Infirmary ;
Lecturer on Dermatology in the University of Liverpool.*

THE tendency of the last hundred years, to say nothing of the pre-scientific ages, has been to individualise diseases of the skin. And this was but natural ; for eruptions are like things in general, inasmuch as they possess form, size, and colour, the three characters which the mind instinctively associates with individuality. Hence when one disease assumes the aspect of red scaly patches, while another appears in the form of red papules, the human mind instinctively individualises these forms. The attention of the observer is concentrated on the form and colour of the eruption, if he be learned in the language of dermatology, he clothes his individual diseases in garments woven out of words. Open any text-book on dermatology, and see how largely the doctrine of the efflorescence looms in the mind of the writer. Page is piled on page to describe spots and patches. How minutely he describes their sizes and colour !

It has been well said that life is a lesson in the falsehood of appearances, and in no department of knowledge is it more imperative that "the judgment of the senses must be corrected constantly by experience" than in dermatology.

But man is slow to learn. It is now a hundred years since Willan

* Read at the Annual Meeting of the British Medical Association, Oxford July, 1904.

published his classical work on *Diseases of the Skin*. His was the age of artificial botanical classifications. The regions he and his early successors traversed were unexplored. Everything was fresh, and every object they stumbled across was a delightful discovery. With the increasing use of the microscope much was hoped for, and truly the harvest was great.

But after all we have not found all we set out to seek; indeed, problems of causation have grown more intricate, not simpler, as we hoped they would. The sooner we learn the fact, the better it will be for us, that the microscope does not reveal causation, although it has created the science of pathological anatomy. It has enlarged our vision. What was formerly a mass now resolves itself into cells and fibres. Our thoughts have thus gained enormously in precision, and our views of morbid processes in clearness of definition. It is true that in the case of the parasitic reactions the microscope reveals a foreign organism in the tissues, but it does not prove that the micro-organism is the cause of the disease. The proof of this is afforded by experiment, and by observation of the contagious propagation of the disease.

But if we exclude the parasitic diseases, there remains a very large class which includes some of the commonest and most frequent diseases of the skin. This class includes urticaria, the erythemata, the eczemas, psoriasis, lichen, dermatitis exfoliativa, and various forms of hydroa.

The most careful and prolonged investigation by many able observers has failed to reveal any causal relationship between these reactions and foreign micro-organisms. We can search the tissues through and through, but the microscope reveals little more than the fact that there has been a redistribution of matter. It imparts information regarding the cellular character of the infiltration, and we are able to note whether the tissues have departed from the normal in the direction of growth or of degeneration. But the accumulated clinical experience of a hundred years has failed to show that any one of the diseases enumerated in this class is the outcome of any definite and constant sequence of events.

Surely here are indications that the time has arrived when we ought to examine our methods of research, and I am glad to see that other dermatologists are of the same opinion too. Already a new

departure has been made by Philippson, Török, and Brocq. At the very outset we are called upon to remodel our conception of causation. It is almost a medical instinct to understand by the word "cause" something of the nature of *entity*, something which is definite, which is mechanically separable from the body, or some definite pathological state of metabolism, such as gout or rheumatism. Now, so far as diseases of the skin are concerned this is true only of the parasitic diseases. In these we certainly have some causal agent which is mechanically separable from the body and which has an independent life outside the human subject. But such is not the case with the non-parasitic diseases. Take, for example, a certain number of consecutive cases of urticaria; they have all the same objective characters, and yet they are not necessarily all the same disease: and for this reason, that the sequence of events which has culminated in the reaction we call urticaria may be different in each individual patient. It is the sequence which makes the *disease*, not the anatomical lesion. The same principle is equally true of the erythemata, as Besnier long ago pointed out. Eczema, no less than the erythemata and urticaria, is a pure cutaneous reaction. Every case of eczematization has a sequence, but this sequence follows no beaten track, and has no fixed starting-point. We must study every case *de novo*.

The modern teaching of cutaneous reaction, which finds its most ardent advocate in Brocq,* is directly opposed to the old doctrine of the efflorescence. It was the fatal error of the old teaching that it tended to lead the pupil to regard the eruption as *a thing standing still*.

Now the principles of cutaneous reactions rest on the laws of dynamics and not on morphology. They are deduced, not from observations of dead skin, but from the study of living skin. Those who maintain these principles—and among them I include myself—recognise that the skin is a system of active moving parts, held in a state of equilibrium by certain conditions. Healthy skin is a living system in true equilibrium; diseased skin is a system in false equilibrium. We shall be the better able to grasp the meaning of these terms, "true" and "false equilibrium"—terms which I admit sound

* See Brocq's most recent articles on this subject in the *Annales de Derm.*, tome v, 1904, pp. 193—289.

strange and uncouth in the dead-house or in a histological laboratory, but which are familiar enough to the physiologist and to the student of physical chemistry—if we study the parts of *living* skin, and see how in health they act and react on each other—in a word, how they can exist together.

In respect of the diseases which we are now considering, the whole skin does not share in the reaction. We are indebted to the microscope for revealing the fact that the reactions take place in the papillary body, or that part of the derma which lies immediately under the epithelium, and which I should prefer to call the *reactive layer* or, perhaps more simply, the metaderm. The epiderm and metaderm together form only a thin margin, a mere fraction of the entire thickness of the skin. But so intimate are their mutual relationships that some dermatologists are of opinion that they constitute an organic tissue, the two parts of which cannot be separated physiologically or pathologically. It is in this thin outer margin, composed of epiderm and metaderm, that all the non-parasitic reactive diseases play their part. Whatever their “causes” may be, they must operate in these limited fields of force.

To-day I propose to give a brief description of the physiological factors which favour reaction and retard it. It is by no means a complete survey of the whole physiological ground, but it is on this ground that we must stand if we are ever to succeed in clearing up the mystery of the etiology of the cutaneous reactions. All that I can do to-day is to show you what form the problem will take, at least as it appears to me. And its solution—well, that will come, not from dermatology, not even from the microscope, as I think, but from physical chemistry or from the science of dynamics.

Excluding for the moment the consideration of external environment, we observe an opposite action and reaction between the epiderm and the cells and capillaries of the metaderm. The epidermis is a continuously growing tissue of low organisation, which absorbs fluid from the metaderm by imbibition. In embryonic life the buds, or proliferating downgrowths of epithelium, which eventually develop into follicles and glands, are met by a corresponding reaction in the metaderm which takes the form of a new formation of cells, and special development of capillaries. In this way the hair-follicle growing inwards is met by the dermal papilla growing outwards,

and is embraced by a richer network of capillaries than the non-follicular part.

If we extend our observations to the sebaceous and sudoriferous glands we can generalise this statement, and say that when one part of the epiderm proliferates more rapidly than another, the increased growth is always met by a corresponding reaction in the metaderm. The same law is observed in extra-uterine life, as, for example, in the case of the corns and epitheliomas and rodent ulcer.

Of all the substances in the epiderm and metaderm which are continually acting and reacting on each other, the most important are the blood and lymph, since these form the body of the efflorescence. Physiologists during the last ten years have added considerably to our knowledge of the factors which enter into the formation of tissue lymph. The problem of explaining the balance of equilibrium between the blood and lymph is complicated by the fact that they are not pure liquids, but liquids holding in solution a large number of chemical substances of great molecular complexity. We have therefore to determine the conditions of equilibrium between the solvent on the one hand, and that of each of the solutes, as the matter in solution is called, on the other. Now, to define the condition of equilibrium of each solute is at present utterly beyond our power. We can, however, approach the problem by considering the entire solutes of the blood and lymph as paired off into two opposing fields of force, the one being the colloidal solutes, the other the crystalloid solutes.

Physiologists inform us that lymph differs from blood but little so far as concerns its inorganic constituents, but greatly as regards the amount of proteids, so that in a normal state the crystalloids of the lymph balance the crystalloids of the blood. According to Professor Starling the relation of the blood proteids to the lymph proteids differs in different capillary regions, although under normal conditions blood proteid is always greater than lymph proteid. Thus, taking the proportion of proteids in the blood as 8 per cent., the hepatic lymph is found to contain 6 per cent. of proteids, the intestinal lymph 5 per cent. of proteids, while in the tissues of the limb the proteids of the lymph amount to about 2 per cent. Since the concentration of the blood and lymph is in proportion to the quantity of their colloidal solutes, we may briefly epitomise these analytical facts

by saying that the blood is under normal conditions of equilibrium more concentrated than the lymph, and that the concentration of the lymph varies in different regions of the body, being highest in the liver and least in the skin. Now, if the surroundings of the blood and lymph were inert or passive, and acted like dead animal membranes, we should have no other forces to consider but those of endosmosis and exosmosis. Professor Lazarus-Barlow* found when experimenting with the osmotic powers of blood-plasmas of different specific gravities that the osmotic current was always from the negative towards the positive—that is, from the lower proteid value to the higher proteid value. How, then, is normal transudation possible, considering that the colloidal solutes of the blood are of greater concentration than the colloidal solutes of the tissue lymph? According to this observation filtration should always pass from the tissues to the blood. “In consideration of these facts,” says Professor Lazarus-Barlow,† “it is extremely difficult to understand how osmosis can play any part whatever in normal lymph formation. The artificial scheme (*i.e.* his experiments on the osmosis of different blood-plasmas) would seem to indicate that the only effect of osmosis in such a case would be to lead in time to the absorption of every particle of fluid which is outside the blood-vessels.”

A solution of this difficulty may probably be found in the fact that the blood and lymph never are, while under conditions of health, in stationary equilibrium. If the natural tendency is for the osmotic currents to flow from the tissues into the blood, contrary forces are never long absent which turn the currents into the opposite direction towards the tissues. These contrary forces we may regard as factors in lymph formation, and they are of four distinct orders—

1. Capillary pressure.
2. Permeability of capillary walls.
3. Lymphagogues.
4. Surface tension.

1. *Capillary pressure*.—Physiologists of the present day are divided in their opinions as to the relative importance to be attached to this factor in lymph formation. According to Professor Starling, it is the dominant factor and the one to which he attaches the greatest

* Lazarus-Barlow, *Journ. of Phys.*, vol. xx, p. 145, 1896.

† Lazarus-Barlow, *loc. cit.*, p. 155.

importance. He says:* "With increased capillary pressure there must be increased transudation until equilibrium is established at a somewhat higher point, when there is a more dilute fluid in the tissue spaces, and therefore a higher absorbing force to balance the increased capillary pressure. With diminished capillary pressure there will be an osmotic absorption of salt solution from the extravascular fluid until this becomes richer in proteids and the difference between its (proteid) osmotic pressure and that of the intravascular plasma is equal to the diminished capillary pressure." That capillary pressure plays a leading part in the formation of lymph in the liver and intestines no one can doubt who has read the protocols of Professor Starling's experiments. But my present object is to consider the lymph factors as they operate in the skin. The pressure in the capillaries may be indirectly determined by estimating the pressures of the arterial influx and venous outflow of the selected region; the pressure in the capillaries must lie between the two estimations. Or they may be experimentally determined after the methods pursued by v. Kries and Roy. The indirect method is not altogether satisfactory, for between the arterial pressure and the pressure in the veins is the unknown pressure in the arterioles. With the open arteriole the capillaries become distended with fresh increments of blood. But this does not of itself lead to any increased capillary pressure; for so long as the lax veins are capable of holding the larger volume, the capillary pressure does not rise, for the blood flows away from the capillaries as rapidly as it enters them. Nor does the open arteriole necessarily lead to increased filtration through the walls of the capillaries into the surrounding tissues; for before this can occur the pressure in the veins must rise to a considerable height. The necessary height to which the venous pressure must rise before its influence can affect transudation through the capillary walls varies no doubt in different regions of the body, and probably in different regions of the skin, and also in different species of animals. Thus Lazarus-Barlow† "found that when a ligature is placed round the hind limb of a dog sufficiently tight to raise the venous pressure to a height of 50 m. of mercury (arterial pressure being 100 m. Hg.) the amount of lymph-flow from the lymphatics of the limb taken on the distal side of the

* Starling, *Journ. of Phys.*, vol. xix, p. 324, 1895-96.

† Lazarus-Barlow, *Journ. of Phys.*, vol. xix, p. 459, 1895-96.

ligature is either identical with, or slightly less than, the amount formed when the venous pressure is normal; in no case was it greater." Two inferences may be drawn from this experiment—first, that the pressure in the peripheral veins may rise without it leading to increased transudation through the capillary walls; and secondly, that the permeability of the capillaries in the limb is considerably less than in the internal organs. It is not sufficient to determine a rise in the venous pressure and infer that *consequently* the pressure in the capillaries has risen also. The venous pressure must rise beyond a certain point—a point which varies in different species, in different individuals of the same species, and in different regions of the body—before increased transudation begins.

Further, there is no proof that increase of venous pressure enters at all into the formation of inflammatory lymph. Indeed, the experimental evidence points the other way. It was shown nearly thirty years ago by v. Kries * that arterial hyperæmia produced by irritation of the surface, as by hot water or the inductive current, does not lead to any increase of capillary pressure.

2. *Permeability of the capillary walls.*—This is no doubt an important factor in lymph-formation. Starling regards the greater concentration of the hepatic lymph as due in part to the greater permeability of the capillary walls in the liver: "The more permeable the medium the greater is the effect of changes in the pressure of the filtering fluid, and the greater is the ease with which dissolved proteids pass through it." The capillaries of the limbs have only a small permeability, and the amount of transudation through them is but little affected by fairly large changes in the pressure of the blood within them. This, however, is true only so long as the molecular condition of the endothelial wall of the capillary is perfect. It was shown by Cohnheim long ago that if a dog's foot be kept in water at 60° C. for five minutes the peripheral vessels undergo some alteration and their permeability is increased. The normal pressure to which they are subjected now suffices to cause a transudation of lymph which is too great to be carried off by the lymphatics and therefore accumulates in the interstices of the tissue, giving rise to œdema. The lymph at the same time becomes more concentrated, due to the larger

* N. von Kries, "Über den Druck in den Blutcapillaren der Menschlichen Haut," *Ludwigs Physiologischen Arbeiten*, 1875, p. 149.

amount of proteids in it. As a factor in the formation of inflammatory lymph increased permeability of the capillary walls must play a very important part. If heat alone will affect the capillary walls, how much more must mechanical trauma, such as scratching, affect their texture; and we all know the effect of scratching upon eczema.

3. *Lymphagogues*.—It is maintained by some physiologists that certain substances exercise a specific influence on the formation of lymph quite apart from the influence of pressure. According to Heidenhain's theory, injected substances pass from the blood to the lymph by diffusion, and this process is assisted by the activity of the endothelial cells of the capillaries. Although this hypothesis still awaits experimental proof, it must be admitted that Heidenhain and his pupils have brought forward evidence which appears to favour it. Dr. George Oliver,* in the Oliver Sharpey Lectures of this year, maintains that certain food elements have the effect of increasing the output of lymph from the capillaries. He finds that cold water, starch, fats, gelatin, proteid, *e.g.* myosin and egg albumen, the sugars (cane-sugar glucose, maltose, galactose, mannose, dextrose, and inulin), pepsin, and hydrochloric acid do not cause any increased flow of lymph. He observed that a meal of roast beef had a marked influence in increasing the outflow of lymph, while a meal of boiled meat had very little effect on the quantity of lymph. Other substances, such as glycogen, levulose, lichenin, sodium chloride, and muscle extractives, such as are afforded by beef-tea, had a decisive effect in increasing the output of lymph. Dr. Oliver's views on the action of lymphagogues derive support from the experimental observations of Lazarus-Barlow,† who found that the intra-venous injection of large quantities of weak solutions of sodium chloride, urea, and glucose, and of small quantities of concentrated solutions of the same substances, led to increase of pressure in the inferior vena cava, and, at the same time, to an increased flow of lymph from the thoracic duct. Sodium chloride produced a relatively greater flow than glucose, and glucose greater than urea. It is important to note, as bearing directly on the question of cutaneous reactions, that these substances when injected into the circulation produced a rise in the

* *Lancet*, April 30th, 1904.

† Lazarus-Barlow, *Journ. of Phys.*, vol. xix, p. 459, 1895-96.

specific gravity of the blood which was experimentally shown in two cases to depend upon an actual diminution in the volume of the plasma.

4. *Surface tension*.—But little attempt has been made to estimate the effect of surface tension on vascular and cellular reactions, and yet its influence must be very great. Let me explain what I mean by “surface tension.” The skin, and even the whole organism, is kept in a state of tension and excitement by the external forces which are perpetually beating on its surface. These forces are the pressure of air, of clothes, and of fluid and solid bodies. Besides pressure are heat, electrical and magnetic forces, light, X rays and gravitation. If these forces acted directly on the capillaries of the skin, their walls would suffer such serious molecular alterations that the entire peripheral circulation would be arrested. As it is, the presence of these exterior forces is a perpetual menace to the stability of the skin, tending to disturb the balance of equilibrium between cell and cell, between the blood and the lymph and their crystalloids and colloids. By force of habit a correspondence has grown up between the state of tension on the one hand and the nerves and vessels on the other hand, so that a mean condition of stability is maintained even in the face of these disturbing forces. But it is only in the face of what we may describe as common forces that this stability can be maintained, and it is a remarkable fact that whenever a *contrast* is established in or on the skin a vascular or nervous reaction follows. I say a “contrast,” because the reaction appears to be quite independent of the chemical or physical nature of the irritant force. All that appears necessary is the incidence of something unusual. Draw the finger-nail over the skin and a reaction follows, the capillaries dilate, and a lymph current is set up which flows from the blood into the disturbed tissues. A comparable reaction may follow unusual elevations of temperature, or lowering of temperature, or exposure to various forms of radiant energy.

This state of correspondence or harmonious relationship between the skin and its environment is largely due to its inertia, which is one of the most important properties of the skin. Its importance is due to the large part it plays in retarding, or arresting, the reactions of the skin. This inertia rests on an anatomical basis, namely, on the mass of formed stable tissue which has lost all the mobility and

instability of protoplasm. This portion of the skin, which chemically consists of collagen, elastin, kerato-hyalin, eleidin, keratin and various fatty bodies, forms the great mass of the cutaneous tissues.

Since the amount of inertia depends on the quantity, density, and degree of rigidity of this inert mass, we may say that the retardation or arrest of cutaneous reactions is dependent on the mass-inertia of the skin. Let us imagine this inert mass of the skin as absolutely rigid, what would be its effect on the cutaneous reactions? The result would be, that pressure and other external forces acting on the skin would be unable to compress, or distort, the subjacent capillaries; they would be under perfect protection at the expense of being shut off from the exterior world. Under such conditions eczema would in all probability disappear from the list of dermatoses. Conceive now the state of the skin in which the mass-inertia is reduced to a point not far above zero. There would be an absence of resistance to pressure, and the capillaries would be compressed, distorted, or injured with slight variations in the external pressure. If the variation fell to zero, the circulation would be completely arrested. In point of fact the inertia of the skin lies somewhere about midway between zero and absolute rigidity; the lower it sinks the more frequent are the vascular reactions of the skin. On the other hand, the nearer it approaches to rigidity the less frequent are the occurrences of these reactions. If we are right in attributing to mass-inertia so prominent a part in the pathogenesis of cutaneous reactions, we should aim at the acquisition of clear ideas regarding the conditions which increase or diminish it.

This leads me to speak of a point of great importance in the dynamics of the skin, but one about which, unfortunately, our information is all too limited. I mean the relation of the bounding surfaces to the fluids or semi-fluids which they contain.

Professor Liebreich* has pointed out that some chemical reactions which take place *in vitro* are retarded, or even arrested, when the space including the fluid is much restricted. Liebreich regards this retardation as being due to increased friction. We all know that the nearer the epiderm cells approach the surface the smaller and more condensed they become, and consequently the nearer their walls or bounding surfaces approach one another, till in the external horn cell

* *Lancet*, ii, 1904, p. 1066.

these bounding surfaces are almost in contact. Corresponding with this observation is the fact that the smaller the cell becomes the more restricted become its internal reactions. It may be argued in objection to this statement that the germinal cell, which is the most active of the epithelial cells, is smaller than the prickle cell. But I believe that the objection is more apparent than real; for in the germinal cell it is the nucleus which is most active, while in the prickle cell, which has ceased to germinate, it is the spongionoplasm which is active, the nucleus remaining apparently inactive.

As a corollary truth of this statement it follows that the more fluid retained by the epiderm and metaderm the further the bounding surfaces of the cells and dermal meshes are pushed asunder, and in consequence of this enlargement of space the intracellular reactions are accelerated. Therefore we conclude that *condensation* of the tissues increases the mass-inertia, and retards reaction, while increase of fluid in the skin, whether the result of œdema, of hyperidrosis, or of absorption of water from without, has the opposite effect of increasing reaction and diminishing mass-inertia. Is not this precisely what we find from our observation of the skin in health and disease? Note, for example, how close and confined are the meshes in the derm as opposed to the more open meshes of the hypoderm. Note, again, in the epiderm how the prickle cells are laced together by filaments radiating in all directions, with the intention, we may believe, of preventing the undue expansion of the intercellular spaces. Further, in morbid states of the skin—as, for instance, in all the inflammations—œdema is an unfailing symptom, in consequence of which the bounding surfaces of the cells are expanded, the reaction accelerated, and the mass-inertia diminished.

But it is not only an unfailing symptom : it is the primary symptom. The earliest microscopical sign of eczema is œdema of the epiderm. And œdema is the first obvious indication of a change in the equilibrium between the blood and lymph, indicating that a lymph current has been set up. What starts this lymph current? We do not know. It is one of the mysteries of pathology. But once started, events do not stand still. The first consequence is the lowering of inertia in the œdematous spot; the œdema increases, and the inertia sinks. The external forces, always inimical to capillary life, now penetrate to the capillaries. What follows? The delicate molecular status of the

walls of the capillaries is damaged, friction increases, vaso-motor relations are altered, the vessels dilate, increased lymph transfusion ensues, it itches, and the patient scratches. And now the mischief is done and eczema is the result. Thus there are no hard and fast lines in nature: nothing stands still. The smallest derangement in the balance of equilibrium, unless promptly rectified, starts event upon event until one eruption or another is the result.

Up to the present I have merely considered the skin as a series of systems in equilibrium, and have sketched, very imperfectly I admit, some of the physiological factors which tend to set up lymph currents from the blood to the outer margin of the skin. But the most serious part of the problem still faces us. What are the primary disturbing causes in eczema, in lichen, in psoriasis, and in erythema? On this part of the problem I cannot enter to-day. I confess it is not from any unwillingness; perhaps it is from sheer ignorance of how to solve the problem. Still, there is something that can be said, but that I shall reserve for another occasion.

A CASE OF HERPES ZOSTER OF THE SECOND DIVISION OF THE FIFTH NERVE.

BY ARTHUR HALL, M.A., M.B.CANTAB., F.R.C.P.,

Professor of Pathology, University College, Sheffield; Physician, Sheffield Royal Hospital.

THE illustration which accompanies the text shows well the complete area of distribution over the right cheek.

The patient was a well-nourished female child of three years, with reddish hair and blue eyes. Previous to the present illness she had enjoyed excellent health, and had no special illnesses, except whooping-cough in November, 1903. In December, 1903, she fell down and bruised the right cheek, causing a black eye.

The eruption appeared on April 26th, 1904. There were no premonitory symptoms, nor did the child complain of any pain. The mother noticed something in the centre of the right cheek, which looked like a scald. It did not seem irritable, nor was the child feverish or languid.

She was brought to the Sheffield Royal Hospital on May 4th. The rash had the typical appearances of a Herpes zoster of the ninth day. There were no spots anywhere else. (*N.B.* The apparent spot on the left cheek in the photograph is a portion of the mother's jacket.) The child did not complain of any pain.

On May 7th it was rapidly disappearing. Four weeks later there was a faint superficial scarring where the eruption had been.

The absence of any pain either before or during the eruption is in striking contrast with the intense pain usually occurring in herpes of the first division of the fifth. The scarring also seemed only quite superficial.

REPORT OF THE FIFTH INTERNATIONAL CONGRESS OF DERMATOLOGY, HELD AT BERLIN FROM SEPTEMBER 12TH TO 17TH, 1904.

BY ARTHUR WHITFIELD,
Secretary for Great Britain.

THAT a Congress held in the metropolis of one of the most progressive and scientific nations in the world should be interesting and valuable was only to be expected; but we may be allowed to congratulate our German colleagues on the complete success which crowned their strenuous efforts.

The opening of the Congress was held in Langenbeck House on Monday, September 12th, at ten o'clock, and after the dispatch of the opening addresses the rest of the morning was devoted to the reading of some of the overpoweringly numerous papers offered to the Congress. Professor Hallopeau read the first paper, on "The Toxic and Immunising Substances in Syphilis." This paper was of great interest and showed great analytical power, but the conclusions alone are too lengthy to be incorporated in this report; and as the paper has already been set up in type, we may hope to see it published before long. The second paper, that of Professor Neisser, on "Attempts to Inoculate Syphilis into Apes," aroused the greatest enthusiasm. Beginning with a short reference to the work of Metchnikoff and Roux on the same subject and to the subsequent

experiments of Lassar, Professor Neisser detailed his own results. A chimpanzee of from one to two years old was chosen as the animal for experiment, and this was given serum by injection from a patient with a secondary eruption. The serum was obtained by bleeding the patient and allowing it to separate from the blood, only clear serum being used. These injections were continued at slightly irregular intervals from October, 1903, to June, 1904, and at the end of the period 442 c.c. of the syphilitic serum had been injected without producing any sign of syphilis. A week after the last injection several inoculations were made on the animal by means of pieces taken from a secondary syphilitic lesion of the tonsil. Some of these inoculations were carried out by means of rubbing scarified areas with the diseased tissue and others by the actual introduction of the tissue into small pockets made in the skin. The result was the production of a chancre in the case of some of the scarified areas, but none in the parts in which the pieces of tissue had been actually introduced. In addition the animal appeared to have succeeded in inoculating itself from one of the areas, and thus produced the most typical lesion of all on the abdomen. The primary inoculation experiment took place on June 17th, and on August 5th a typical secondary eruption was observed. The conclusions drawn were that the injection of even considerable amounts of serum from a syphilitic man produced no ill effect on the chimpanzee, although there was time enough for the production of secondary syphilis before the inoculation experiments were carried out. Secondly, that this exhibition of serum had no effect in producing an immunity to the succeeding inoculation, and therefore those observers are supported who see in Colles' law the infection rather than the immunisation of the mother, and that no grounds exist for the belief in the transference of immunising substance from the child to the mother. As far as one can judge in a hairy animal, successful inoculation of syphilis on the chimpanzee was obtained. Neisser also criticised some of Metchnikoff's deductions as to the immunisation of chimpanzees by inoculating from nodules produced by syphilis in a macaque, on the ground that not every inoculation into a chimpanzee is successful. He was followed by Professor Metchnikoff, who was received with great applause. Metchnikoff said that he had now had successful results from the inoculation of oranges and gibbons. He had also determined

the facts that the virus did not pass through the Berkefeld filter, and that adding glycerin to it did not destroy it. He considered that chimpanzees were very susceptible to syphilis, and that the *Macacus sinicus* was probably the best animal for attenuating the virus. He considered that those apes which showed the least significant symptoms of syphilis after inoculation would probably prove the best from which to obtain a protective serum. The discussion was continued by Professors Lassar and v. Niessen.

On Tuesday morning at 8.30 an exhibition of cases was held in the "Charité," and from this time onward the session took place in the pathological theatre of the new building. The number of cases shown on Tuesday was thirty-seven, and some of these were of extreme interest. Of these may be noticed a case of psoriasiform Lupus erythematosus in a woman aged 41 years. The disease had begun fourteen years before in the scalp and had attained gigantic dimensions, large patches being found all over the body and extremities. Next a case of prefungoid stage of *Mycosis fungoides*. This was of one year's duration in a man aged 43 years, and had begun as a Pityriasis rubra which had soon afterwards become bullous. At the time of exhibition a tendency to the formation of tumours was just beginning to show itself. Thirdly, a man with an eczematoid eruption on the arms and nates, combined with a papillomatous linear eruption running down the right calf. Some observers thought this to be also a case of *Mycosis fungoides*, but it appeared to me to be a follicular eczema which had become very septic on the leg, and in which papillomatous development had been favoured by a colossal varicosity of the veins in the affected area. I was unable to get the opinion of my English colleagues on this case. Fourthly, two very good cases of Raynaud's disease, in one of which sclerodactylia was also present. Fifthly, a man with large sheets of atrophic skin on both sides of the abdomen and on the fronts of the thighs. The disease was apparently congenital, and on close examination appeared to me to be due to a widespread angioma which was undergoing continuous atrophy. Dr. Heller, who showed the case, said that this was exactly the impression which he had gathered from a microscopical examination. Sixthly, a man with a diffuse dermatitis affecting the whole of the trunk, the arms, and legs. The patient was aged 42 years, and the disease had existed for ten years without ever itching. On close

examination the whole skin was found to be reddened and covered with a network of somewhat brownish and slightly atrophic macules. There was hardly any papule formation, but the appearance was rather that of a Lichen planus which had to some degree involuted. Parakeratosis variegata was one diagnosis offered, but it did not receive much support, and Unna himself refused to accept the case as one of his class. Lastly, a case of pemphigus foliaceus of three and a half years' duration in a man. The case was universal and quite typical, but the condition of the patient was such as to forbid detailed examination by large numbers.

The subject for the discussion of the day was "Leprosy," but as the volume dealing with this part is already published I need offer no remarks on it.

On Wednesday there was an exhibition of twenty-seven dermatological cases, in addition to a collection of cases illustrating the results of Finsen's treatment. The collection on this day did not show the remarkable rarity seen on the previous morning, but there were nevertheless several cases of great interest. Among these may be mentioned several well-marked cases of the disease known in France as folliclis, and with which we are quite familiar in this country. Some of the examples shown were so early that no marked cyanotic infiltration or softening was present, and the cases needed careful attention to avoid dismissing them as insignificant papules on the backs of the hands; but they were nevertheless characteristic in their history, site, and distribution, and it was interesting to see how familiar such cases seemed to be to our French colleagues, who apparently see much more of the disease than we do. Another interesting case was that of a child who had been born with a large "port-wine" nævus, covering almost the whole of the face. It is well known how disfiguring these anomalies are and how difficult the treatment is, so that it may be of interest to report the result of a course of Finsen's treatment for six months. The angioma had almost entirely disappeared; only here and there were there to be seen small areas of capillary and small venous engorgement whereby to trace the condition that had formerly existed. The flaming patch was, in fact, changed into a superficial scar, and although this scar was hardly what one could call a cosmetic success, being very different from what we are accustomed to associate with the Finsen light, yet

it was an undoubted improvement on the condition which had previously existed. An excellent example of *Asphyxia reticularis* of Unna was also shown on this morning, and it was instructive to hear Dr. Unna demonstrate his views of the case, though such conditions are of more academic than practical interest at present.

The subject chosen for set discussion was "Skin Affections associated with Anomalies of Metabolism." This was opened by von Noorden, of Frankfurt, but owing to the extreme length of his paper, which lasted more than twice the scheduled time, and was read with the utmost rapidity, I was unable to follow it sufficiently to give any idea of its purport. He was followed by Duncan Bulkley, who devoted his attention chiefly to those forms of erroneous metabolism which are evidenced by alteration in the urinary secretion. Radcliffe-Crocker, who came next, took a somewhat wider view of the subject, and followed the various skin affections which were associated with myxœdema, Graves' disease, jaundice, and other liver disturbances, alluded to the probable affection of the skin by means of the sympathetic nervous system, and finally mentioned some interesting points connected with toxæmia of intestinal origin, believing these to be due to either the generation of unusual poisons in the canal itself or the failure of the detoxicating action of the liver in destroying poisons usually formed.

On Thursday morning the exhibition of cases comprised thirty-one interesting exhibits. Of these may be mentioned two cases of neurofibromatosis coming on almost in adult life, a case of the type of *Nævus unius lateris*, but distributed bilaterally in wonderful streaks and patterns, a case of extensive mole in a man affecting the areas covered by a vest and short drawers, a case of *Lupus vulgaris* associated with epithelioma, one of *Lupus erythematosus*, also associated with epithelioma, two cases of pre-fungoid stage of *Mycosis fungoides*, a case of syringo-cystadenoma, and one labelled "*Lymphangioma tuberosum multiplex*." With regard to these latter it was generally regretted that a microscopical specimen was not exhibited with the patients, as the cases alone hardly admitted of a definite and positive diagnosis. An interesting case in a child was also shown, in which yellowish patches were present on the arms, body and legs associated with factitious urticaria and an urticarial reaction of the patches on rubbing. This was labelled *Xanthoma multiplex*, but there was a

unanimous opinion among the English school that it was in reality a case of *Urticaria pigmentosa* of the original Tilbury Fox type, an opinion which, however, was not shared by the German school. Another case of great interest was that of a middle-aged woman who had been the subject of a practically total alopecia of the head for many years. The condition had apparently commenced as an *Alopecia areata* of the band form, and had resisted all treatment until exposing it to the rays of the iron-arc lamp had been tried, and this was followed in a few months by a considerable growth of grey hair.

The discussion on this day was "On the Syphilitic Affections of the Circulatory Apparatus," and this, though of great interest, is hardly suitable for insertion into this report. After the discussion, Dr. Darier read a short abstract of an extremely interesting report on "Multiple Subcutaneous Sarcoid," in which he found a structure somewhat simulating that of tubercle, but no positive evidence of the disease. By suitably extracting tubercle bacilli with chloroform he succeeded in causing lesions by injection which exactly resembled those in his case, and he argued that some of these lesions might be the result of the spread of products of broken-down tubercle bacilli through the circulation.

On Friday morning there was an exhibition of twenty-nine cases, most of them being perhaps of slightly less interest than on the preceding days. There were a large number of cases showing the result of X-ray treatment of rodent and "cancroid" of the face, but these need not occupy me. The most striking case shown on this day was that of a child who had been vaccinated while suffering from a weeping eczema of the face and extremities. The vaccinia had apparently become inoculated by rubbing from the arm to the raw surfaces, and the whole face was one mass of confluent vesicles exactly simulating confluent smallpox. The hands were also severely affected, but the body was quite free.

The discussion on "Epitheliomata and their Treatment" was of great interest, more especially as a good proportion of the openers showed specimens or lantern slides on the screen in illustration of their points. Undoubtedly the most striking exhibition was that of Fordyce, who showed a very large number of the most absolutely perfect photomicrographic lantern slides. It is perhaps worthy of note in relation to this discussion, first, that the origin of the *nævus* cell seems now

generally accepted as epithelial, and that Darier would classify the naevus or mole growths into epithelioma nævo-cellulare benignum, and malignum, according to their being simple moles or secondarily derived malignant tumours; secondly, that the term "cylindroma" seems to be accepted as an epithelioma with hyalin degeneration of the connective tissue, and not as an endothelioma; thirdly, that basal-cell epithelioma, in contradistinction to prickle-cell epithelioma (a term suggested, I believe, by Krompecher), is now quite well known as containing the group of rodent ulcer, Fordyce making a distinction between ordinary baso-cellular epithelioma and rodent ulcer in which I could not quite follow his reasoning.

On Saturday morning we had a record show of cases as regards numbers, forty-four being exhibited. There were two cases of the peculiar folliculitis commencing on the outer halves of the eyebrows and described by Tänzer as Ulerythema ophryogenes, and a very peculiar keratosis pilaris all over the back of a young man and said to be of five years' duration. The man had recently acquired syphilis, and except that there was no grouping of the follicles, the case strongly suggested the ordinary follicular syphilide. The history of five years and the itching said to be present would, however, if correct negative this diagnosis, and I did not meet with anyone who cared to pronounce definitely upon the case.

There was also a terrible case of primary sarcoma of the skin in a man. The disease had begun ten months before, with the appearance of a tumour on the upper and outer side of the left calf. A few months later a sudden generalisation had taken place, and the whole skin was covered with an eruption not unlike a mixed papular syphilide. Microscopical diagnosis had shown the disease to be a round-celled sarcoma, and the appearance of the man suggested that he had internal metastases, though none were to be detected.

Lastly, I may mention a peculiar case in a man of a somewhat gyrate eruption occupying both sides of the scalp and temples, missing the rest of the face, affecting the whole of the trunk, back and front, in a continuous sheet of bluish-red and slightly scaling eruption, and breaking up into isolated papules and groups on the extremities. The isolated papules seemed to me to be typical Lichen planus, an opinion in which I was joined by some of my English colleagues, while others of the Englishmen and the Frenchmen considered it a

typical Pityriasis rubra pilaris, and some of the Germans were equally positive that it was psoriasis !

We visited the museum one afternoon and looked at the exhibition of casts and photographs there. The collection was small, but the artists of many cities were represented, and it was surprising to see how general the great skill in making life-like casts has become of late years. Perhaps the most impressive were those exhibited by Fiweisky of Moscow.

In concluding this report, I am sure I am only voicing the sentiments of my colleagues in offering our congratulations to the committee who organised the successful Congress and our gratitude to the individual members who showed us such princely hospitality.

SOCIETY INTELLIGENCE.

DERMATOLOGICAL SOCIETY OF LONDON.

AN Ordinary Meeting of the above Society was held on Wednesday, October 12th, 1904, at 4.30 p.m., Dr. J. J. PRINGLE in the chair.

As this was one of the days during which the French physicians were being entertained in London, a general notice had been sent to them through the Organisation Committee inviting them to be present at the meeting.

The following distinguished visitors accepted the invitation and were present : Professor Hallopeau, Dr. Angibaud, Dr. Barrier, Dr. Gastou, Dr. Jacquet, and Dr. Pautrier.

The Minutes of the last meeting having been read, confirmed, and signed, Dr. Pringle expressed the pleasure that it gave the members of the Society to see the visitors present and begged that they would consider themselves as members for the afternoon and join in any of the discussions that might take place.

The following cases, specimens, and illustrations were then brought forward :

Dr. JAMES GALLOWAY presented a man of about 32 years of age, the subject of an unusual variety of *Lichen planus*. The eruption had commenced about twelve months before as numerous discrete papules over the lower part of the trunk and upper part of the thighs and at first had given the appearance of the ordinary diffuse variety of the

disease. Instead, however, of running the acute course, which is usual in this condition, the exceedingly minute papules remained on several parts of the body—for instance, the flexor surfaces of the forearm—in what appeared to be a resting condition. Very little inconvenience was experienced and the minute papules spoken of have now persisted for many months.

The lesions were only slightly reddened in appearance and in consequence presented a striking demonstration in miniature of the characteristic lesions of this condition.

Mr. T. J. P. HARTIGAN (introduced) showed a case of *Nævus flammeus* treated by radium bromide.

Dr. H. RADCLIFFE-CROCKER and Mr. GEORGE PERNET showed the following cases—(1) a woman, aged 45 years, suffering from advanced nodular *leprosy* contracted in Australia. She first came under observation in 1895. At first there was improvement with intramuscular injections of perchloride of mercury, but she neglected herself very much, and ceased active treatment for a long time, the disease making progress in consequence. In 1901 she went to another hospital for the X rays, the result in that instance being a severe burn of the central parts of the face, including the lips, for which she again came under care at University College Hospital. Healing took place quickly, and the ultimate result was locally very satisfactory, and since then she had attended for the X rays, with some further local benefit to the face. But the disease as a whole was making progress. The case had been shown previously.

(2) *Mycosis fungoides* in a man aged 28 years. He had been brought before the Society in July, 1904,* when he presented a raised, red, irregular infiltrated patch in the interscapular region, with scaly crusts, psoriasiform in appearance. In addition, there were scaly and infiltrated patches on the other parts of the trunk and on the limbs. The face and scalp were also affected. The X rays were being employed in his case, with benefit. A water-colour drawing of his previous condition was shown, to compare with his present state. The disease had been going on for some eight years, and the attacks (four or five) of dermatitis had been looked upon as eczema by medical

* *The Brit. Journ. of Derm.*, vol. xvi, September, 1904, p. 848.

men consulted at the time. The patient's general health was good. There was not much itching.

(3) In connection with the foregoing case, a drawing was shown of another male patient, aged 33 years, suffering from *Mycosis fungoides*, who had also been shown to the Society,* but who had been prevented from presenting himself on this occasion. He had been treated by the X rays, and when Mr. Pernet saw him, some six weeks ago, there was practically nothing to be seen on the skin. The patient felt very well and the disease was apparently cured.

Prof. HALLOPEAU, of Paris, commented on the remarkable action and great value of the X rays in *Mycosis fungoides*.

Dr. GASTOU, of Paris, referred to the results of some researches he had made with regard to the composition of the urine before and after the use of the X rays in these cases. The changes brought about were very marked, and he insisted on the general effects of the X rays on the processes of metabolism.

(4) A young man, aged 21 years, with symmetrical *Xanthoma tuberosum* of the elbows and knees. He had been brought before the Society three years before and also since.† A drawing was shown of his condition when he first came under observation. The knee and elbow patches had involuted to some extent under the X rays. An interesting point about the case was that he had lately developed a small patch close to the inner canthus of the right eye, and as the patient complained of a good deal of pain in it, Mr. Pernet had removed the lesion. Several nodules of xanthoma had also appeared, first on one buttock, then on the other. Moreover, minute xanthoma striæ were commencing to form about the hands in the lines of flexion. There was no apparent visceral disease, the patient's general health being good. There was no sugar in the urine. An elder brother, now dead, had had xanthoma patches on one elbow.

(5) A case of *Yellow plaque infiltration* in a male Jew, a tailor, aged 32 years. Dr. Radcliffe-Crocker proposed to call the condition provisionally *Xantho-erythrodermia perstans*. It had been going on for four years, and began on the thighs. The legs and forearms were next involved, but the patient did not remember when the body was first affected. Fresh patches had appeared but none had gone away. The lesions consisted of irregular patches from half an inch to several

* See also *Brit. Journ. of Derm.*, vol. xiv, 1902, p. 63; then under the care of Dr. Stowers.

† See *Brit. Journ. of Derm.*, vol. xiv, 1902, p. 19, and vol. xvi, 1904, p. 347.

inches in diameter, symmetrically distributed about the trunk and limbs. On the trunk they were arranged in oblique lines from the vertebral spines outwards and downwards (in the lines of cleavage practically). Some of the smaller lesions had a fairly oval outline. They were well defined from the healthy skin. The border was not more raised than the centre, and no elevation above the level of the skin could be seen or felt. In colour the patches were of a yellowish-pink, in some parts the yellow tint predominating. There was some slight thickening when the skin was pinched up. The patches on the trunk were larger than those on the limbs, and there were healthy areas completely enclosed by surrounding lesions. Below the knees the patches were slightly but distinctly raised. There was faint scaling on the thighs and upper limbs, but none on the trunk. The upper part of the chest, neck, and face were free except a small patch on the lower lip about the chin. There were also large areas of unaffected skin on the thighs, but only small areas on the upper limbs. On the back there were scarcely any in the central parts. The hands were unaffected, except near the wrists, which were slightly involved. There was no itching. The mucous membranes were normal. The patient was well nourished, but suffered from bronchitis.

Dr. H. RADCLIFFE-CROCKER remarked that he had seen several similar cases, but he did not know their pathology. They went on progressing. He referred to the possibility of the condition being a pre-mycotic stage, but although he had watched one or two cases over longish periods he had never seen them go on to *Mycosis fungoides*. He referred also to a case he had shown to the Society, the patient being a stout butcher,* in whom the patches had disappeared with salicin internally and vasogen-iodine rubbed on locally.

Professor HALLOPEAU was not familiar with the condition, and he proposed the name of "Crocker's Disease" for it.

(6) A female school-teacher, aged 24 years, with *mixed sclerodermia*. The disease commenced at the age of 12½ years about the right shoulder. Over the right scapula there were several patches of morphœa situated in a sclerodermic area. The sclerodermia also involved the right arm, which was atrophied as a whole when compared with the left; the muscles felt hard in the former. The right wrist could only be semi-flexed. There was no history of Herpes zoster in the case.

Dr. F. PARKES WEBER brought forward a case of *Lichen planus* in which after twenty-eight years' duration the eruption rapidly disappeared. The patient, J. D—, was a strongly built, rather heavy

* See *Brit. Journ. of Derm.*, vol. xv, 1903, pp. 65-66.

Englishman, aged 80 years, who began to suffer from his cutaneous affection about twenty-eight years ago. He was seen in 1878 by Dr. Tilbury Fox and by Dr. Colcott Fox, who regarded the case as one of "Lichen ruber planus." He was likewise seen by many other medical men. The eruption seemed sometimes better, sometimes worse, but in spite of various methods of treatment, including spa treatment at Harrogate, it persisted until August, 1904, and was occasionally accompanied by intolerable itching. To relieve the itching the patient was accustomed to roll a small pricking instrument over the itching parts of his skin. This instrument resembled a large wooden reel for cotton thread, but it had a brass handle for using it as a roller and had the surface of the roller covered with minute sharp brass spikes. For the skin of his back and thighs he formerly used to employ a similar roller, but larger and armed with much more formidable spikes which entered the skin and drew blood. The larger instrument, which he had altogether given up using about two years ago, reminded one of mediæval instruments of torture such as were formerly exhibited at Nürnberg in Germany. Both these instruments (which were shown at the meeting) had been given to the patient by an Italian doctor in London about the year 1880. The smaller one he still continued to use for itching.

When Dr. Weber saw the patient, in June, 1903, at the German Hospital, there was an eruption of reddish, somewhat scaly spots over the back. He had been treated in various ways without satisfactory results in the out-patient department. At Dr. Weber's request, Dr. Colcott Fox kindly examined the man, and at Dr. Fox's suggestion (June, 1903) a mixture of carron oil with zinc oxide and liquor carbonis detergens was tried. The eruption then became much redder and more active-looking, and some of the reddish papules seemed as if they were commencing to suppurate, but this was perhaps due to the patient's use of his spiked roller. Other treatment was then tried and improvement seems to have followed, but in August, 1904, when Dr. Weber saw the patient again, he still had flat reddish papules resembling Lichen planus scattered over the lower part of the body.

In September it was found that the eruption had practically disappeared, though some itching continued. Hebra's "unguentum diachyli" (equal parts of emplastrum plumbi and soft paraffin

in 1903. In regard to the general condition in October, 1904, he was, for his weight and age, fairly active and mentally alert. The urine was free from albumen and sugar and exhibiting for a slight cystitis merely to be heard once in the apex and the base of the heart, the thoracic and abdominal cavities appeared to be free from disease. There was no evidence that the twenty-eight years of the cutaneous affection had produced any disorder of the kidneys.

Dr. Weber thought that the cutaneous affection from the commencement to the end was Lichen planus, as it was certified to be in a note still in the patient's possession, written by Dr. Colcott Fox on September 7th, 1878. The eruption had been associated with much pruritus, and, according to the patient's description, had doubtless at times been complicated by urticarial wheals. The continuance of the disease for twenty-eight years might be due to the overlapping of attacks, and his present freedom might perhaps be partly accounted for as a reaction from the acute exacerbation of 1903. It should be noted that the patient had had much cause for chronic mental worry.

Dr. WHITFIELD showed a young man, aged 18 years, suffering from a *Lichenoid eruption* on the body and limbs. The history of the case was one of great interest. It appeared that the patient had suffered from indolently enlarged glands in the neck for a very long time, and these had given him no particular trouble until the last few weeks, when, after a severe sore throat, one of those on the right side had become very much larger, painful, and soft. He came to the hospital, and this gland was found to have softened into an abscess, which was accordingly opened and dressed. On stripping the neck to apply the dressing, the patient was found to be suffering from an eruption, and was accordingly referred to the skin department. A further history elicited there with a view of coming to a diagnosis showed that some seven or eight months ago the patient had contracted a gonorrhœa, and an examination of the penis showed a flat scar on the right side of the glans penis, of about the size of a little finger nail, and very suggestive of the scar left by a sclerosis. An examination of the throat also left no doubt that the patient was suffering from secondary syphilis, both sides of the fauces being

covered with whitish, sodden epithelium with a good deal of erythema round and extending forward on the soft palate. The rash consisted almost entirely of small, miliary papules of a bright red colour, surrounding the hair-follicles, some showing an abortive attempt at pustulation, others bearing a horny scale and others, again, a very minute spine. The papules were distributed without grouping all over the shoulders, and especially thickly over the lumbar region; they were plentiful again all over the chest and abdomen, and especially so on the insides of the thighs and the back of the knees. The upper arms were less heavily affected, but the flexor surfaces of the forearms showed a great number. Dr. Whitfield reminded the members of the case shown at a previous meeting by Dr. Pringle, and said that this now made the fourth case he had seen in which the coincidence of tuberculosis and syphilis rendered the diagnosis of some difficulty. He thought there was no doubt in this case that the eruption was syphilitic, but he called the attention of the members to the fact that no differential diagnosis could be made by means of a histological examination, the findings in the case of the syphilide being exactly similar to those in the tuberculide. He also pointed out that in some of these cases operation on the glands appeared to determine the eruption when it was of a tubercular nature. Lastly, he would like to express his opinion on the suppuration of the glands. The march of events as he understood it seemed to be that the angina of syphilis determined the suppuration in the already weakened tubercular glands, although suppuration of glands in the neck in uncomplicated cases of syphilis was rare. It was his experience that in those cases of tubercular glands of the neck which had undergone sudden enlargement and softening from superimposed syphilis it was usually unnecessary to open the swelling, as by prompt and efficient mercurial treatment the glands subsided again without rupture.

Professor Hallopeau expressed his great interest in the case and said in view of the various factors he thought a positive diagnosis could not be established without first watching the case.

Since the patient was shown the result of a week's mercurial treatment has been to cause marked fading of the eruption, a result rather unusual in the cases of the follicular syphilides but nevertheless tending to establish the originally offered diagnosis.

HISTOLOGICAL NOTE.

NOTE ON THE STAINING OF ELASTIN AND THE USE OF COUNTER-STAINS.

BY MAX JOSEPH (BERLIN).

IN the October issue of the *British Journal of Dermatology* for this year, on page 392, Huie refers to the value of toluidin blue as a counter-stain to the acid orcein method of Tänzer and Unna for elastin. This method, which gives very good results, was recommended years ago by Benda, and I have mentioned it in the second edition of my *Dermato-Histological Technique*.

Yet I prefer the method of Weigert for its simplicity, and I consider that better pictures can be obtained with it when counter-stained by lithium-carmin, or by the van Gieson method, than by acid orcein and toluidin blue. By Weigert's method the collagen of the connective tissue is stained a pale blue, or is unstained, and gives a good contrast to the deeply stained elastic fibres. The chief advantage, however, is that even the youngest fibres and nuclei are stained intensely. With acid orcein, on the other hand, these fine young fibrils are difficult to distinguish from the collagen, and may be hardly recognisable. This is the reason why more elastic tissue becomes visible in sections stained by Weigert's method than by any other stain.

CURRENT LITERATURE.

A CASE OF "ADENOMA FOLLICULARE CUTIS PAPILLIFERUM." KARL KREIBICH. (*Archiv f. Dermat. u. Syph.*, May, 1904. p. 3. Three plates.)

UNDER the heading of "Adenoma Folliculare Cutis Papilliferum" Kreibich describes an anomalous case of symmetrical nævus which occurred in his clinic last year. The patient was a woman aged 23 years, who had suffered from birth from peculiar nodules in the skin, which were at first about the size of a split-pea, but gradually increased and tended to assume a warty appearance. Certain of these growths were removed by operation on two occasions, but the extirpation had not been sufficiently radical and they recurred. The lesions were associated with no subjective symptoms. Two photographs of the front and back of the patient above the waist show the general characters and distribution of the

lesions. On the back of the neck, about two fingers' breadth from the margin of the hair, there was a group of about ten small cysts, each about the size of a split-pea. These had a translucent aspect and retained the colour of the surrounding skin. One or two of these cysts had become purulent, and occasionally they were replaced by small ulcers. Another group of similar lesions had coalesced to form a patch on the back of the right shoulder, and there were a few cysts present in the right supra-scapular region, situated on a scar the result of one of the operations. Extending from the vertebra prominens down to the level of the spine of the scapula, and situated over the vertebral column, there was a raised circumscribed warty lesion which suggested in appearance a large *Condyloma acuminatum*. On it there were several pearly cysts, and where these had broken there was a papillated growth from the bases of the cysts. This diseased patch had a soft elastic consistence. A somewhat similar "cauliflower"-like lesion was situated on the right breast, and there was an irregular scar present about the anterior border of the right axilla which had been produced by operation.

A histological examination showed that the cysts were frequently connected with the pilo-sebaceous follicles, and might occupy the region of the sebaceous gland or be situated at the bottom of the follicle near the papilla. Some of them were situated below the follicle and no connection between the two could be traced. There were also deposits of cells which were grouped like the cells of a sweat-coil, and hence the term "adenoma" was given to the condition by Kreibich. None of the cysts seemed to be connected with the sweat-ducts. Another section showed a cyst opening on the surface, the floor of which presented a papillated epithelial growth. The histology of the condition strongly suggested "epithelioma adenoides cysticum," with the additional tendency of forming papillated growths on the surface and in the floor of the broken cysts.

J. M. H. M.

Archiv für Dermatologie und Syphilis. (June, 1904.)

THE June issue of the *Archiv* forms an exceptionally large and well-illustrated number, and contains sixteen original articles. It is dedicated to our distinguished *confrère* Professor Josef Doutrelepon, of Bonn, on the celebration of his seventieth birthday on June 3rd, 1904. It has as a frontispiece an excellent photograph of the distinguished professor. We cordially join with our Continental colleagues in wishing him many years to come and in congratulating him on the valuable work which he has done for the advancement of medicine.

The following abstracts of a number of the contributions to the issue will serve to show the varied and useful characters of the papers it contains :

A CASE OF MULTIPLE MYOMATA CUTIS. By BRÖLEMANN. (*Archiv f. Dermat. u. Syph.*, June, 1904, p. 163.)

THE patient was a healthy, well-built man, aged 29 years, who presented numerous small tumours varying in size up to a cherry, and situated on the skin below the left breast, and also on the back between the shoulders. The lesions were reddish in colour and painful on pressure. They appeared first when the patient was 18 years of age. They did not seem to have any relation in their distribution either to the cutaneous nerves or to the "lines of cleavage" of the skin. One of the small tumours was excised and examined microscopically. The

tumour mass was situated in the corium, and the epidermis over it was thinned. It was enclosed in a condensed connective-tissue capsule, from which septa passed into the growth, giving it a lobulated structure. The main mass was found to be connected with an Arrector pili muscle, and to be composed of unstriated muscular tissue. It appeared to have taken its origin from the Arrector pili, and not from the muscular wall of a blood-vessel or from the involuntary muscle-fibres of the sweat-coil. The writer discusses the literature on the subject, and gives a brief *résumé* of a number of the cases which have been reported. The paper is illustrated by a photograph of the patient and a coloured drawing of the histological appearances.

CONTRIBUTION TO THE CLINICAL APPEARANCE AND PATHOLOGY OF PEMPHIGUS FOLIACEUS. By FABRY. (*Archiv f. Dermat. u. Syph.*, June, 1904, p. 183.)

THE case on which this contribution is based was a classical example of pemphigus foliaceus (Cazenave). The patient was a milkman, aged 40 years, and the disease had begun about three years before he came under the observation of the writer. It commenced as red patches on the chest and back and about the axilla; these were slightly scaly, and the possibility of their being lesions of pityriasis rosea (Gibert) or of eczema marginatum was considered. Erythematous lesions gradually appeared in different situations, but the real nature of the case was not determined till a number of bullæ had developed, which were about the size of a shilling and contained sero-purulent contents. On the back the bullæ coalesced and broke, leaving the corium denuded of epidermis, and preventing the patient from lying in the dorsal position. There were no lesions in the mucous membrane. The urine was examined, and was found to be free from albumen. The bullous or primary stage of the eruption lasted about eight weeks. It was gradually replaced by the second stage, namely, that of universal dermatitis, and this stage had lasted for two and a half years in spite of uninterrupted treatment, both local and general. The patient's skin was affected from head to foot with a red, infiltrated, scaly dermatitis. The hair of the scalp, beard, eyebrows, and the cilia had almost completely fallen out. Notwithstanding the state of the skin, the patient's general health was relatively good and his kidneys acted freely, and there was no trace of albumen. The patient developed an attack of bronchitis; tubercle bacilli were carefully searched for in the sputum, but with negative results.

This was the condition of the patient when the paper was written. A microscopical examination was made of the bullous lesions, and showed that there was a proliferation of the epidermis associated with parakeratosis, and a dense inflammatory infiltration in the superficial layers of the corium, and that the bullæ were situated at the junction of the corium and epidermis, the position in which rapidly-forming bullæ are usually found.

TWO CASES OF "ERYTHROMELIE" (Pick). GROUVEN. (*Archiv f. Dermat. u. Syph.*, June, 1904, p. 207.)

AT a meeting of the National Philosophical Society at Vienna in 1894 Pick described three cases of what he believed to be a previously unrecognised skin affection, which he named "erythromelie." The principal feature of this peculiar affection was a diffuse or partly circumscribed reddening of the skin, chiefly

affecting the extensor aspects of the extremities, and not associated with any other change in the situation involved. He regarded the condition as the result of a vaso-motor neurosis of central origin. In this contribution Grouven described two further cases which occurred in the clinic of Professor Doutrelepon at Bonn. In Case 1 the patient was a man aged 55 years. In 1902 he injured the skin of his left leg with a hammer, and it completely healed in a month. Several months before the injury he had suffered from pain and swelling of the legs, which resulted from cold weather. Since then the "erythromelie" had developed. The skin of both lower extremities, when he came under the writer's observation, had assumed a diffuse livid red tint, and was dotted over with brown specks. The veins over the surface were dilated and palpable. The skin over the lower third of the legs and on the dorsa of the feet was red, scaly, and atrophic. The tactile sense was diminished in the affected skin, but the sensations of pain and temperature were unimpaired.

In Case 2 the regions affected were the hands and wrists, the skin of which was livid red, scaly, and atrophied like cigarette paper. There were no subjective symptoms associated with the affection of the skin.

A piece of tissue was removed from the back of the right hand for microscopical examination. This revealed an atrophic state of the skin. The Malpighian layer of the epidermis was thinned and the papillary body flattened so that the line of junction between the epidermis and the corium was straight instead of being wavy. The stratum corneum on the other hand was thickened. The cells of the basal layer of the epidermis were deeply pigmented. In the corium the capillaries in the subpapillary plexus were widely dilated, and around them were foci of cellular infiltration, consisting of lymphocytes, mast-cells, and a few plasma-cells. The fibrous elements were altered. The collagen had become swollen and homogeneous, and the elastin in places had broken up. The sweat-glands were few in number, and the hair-follicles were absent. The subcutaneous fatty layer was defective.

Klingmüller, who also has described cases of this affection, considers that the disease takes its origin in the blood-vessels, and that the pigmentation and atrophy are secondary. With this view the writer does not agree.

J. M. H. M.

ON THE PRESENCE OF TUBERCULOSIS VERRUCOSA CUTIS IN MINERS. SCHULZE. (*Archiv f. Dermat. u. Syph.*, June, 1904, p. 329.)

FABRY was the first to draw attention to the common occurrence of tuberculosis verrucosa cutis in coal-miners. He reported a large number of cases from the district around Dortmund. The present contribution is also from Fabry's clinic and still further adds to the number of cases. The disease, according to Schulze, does not commence, as ordinary lupus does, with the appearance of typical "apple-jelly" nodules, but as small brownish-red linseed-sized macules covered with a small white shiny scale. The parts most commonly affected are the backs of the hands and fingers, and the inter-digital clefts, and in a few cases the forearms. It does not begin, like *Lupus vulgaris*, from about the third to the sixth year, but after the patient has begun work in the mines. To show the large number of such cases Fabry's and Schulze's figures may be quoted. From 1889 to 1897 Fabry collected 60 cases; from 1897 to 1899,

Archiv f. Dermat. u. Syph. 1904, 38 cases, from 1901 to 1903. 32 cases and 17 plates. J. M. H. M.

NAVI SYRISGO-ADEMATOSI WOLTERS *Archiv f. Dermat. u. Syph.* June 1904; 54. Two plates.

In 1902 in the *Archiv f. Dermat. u. Syph.* Petersen reported a case of multiple tumours of the corium which had the appearance of a *Nævus* minus cysts and the nature of which was only discovered by histological examination. Four similar cases occurred in the practice of Professor Wolters and form the basis of this monograph. In Case 1 on the right lower eyelid was a small elevation, the top of which was flat, brownish in colour, and slightly scaly, and about the size of a pea. In the centre of it there was a transparent appearance as if it were cystic. It was excised and examined microscopically and found to consist chiefly of a large cyst lined by regular cylindrical cells and containing sweat-like and a few fat cells. The cyst was connected with a canal which tapered off into a solid process, but was not an ordinary sweat-canal. It had no relation to the pilosebaceous follicles.

In Case 2 a brownish tumour was situated on the pectoral border of the left axilla. It was ovaloidal and about 5 mm. in its long diameter. A histological examination showed the presence of two cysts lined with cylindrical epithelium, and between them a much thickened sweat-canal which was beginning to become cystic. In Case 3 there was a congenital tumour like a soft *nævus* situated on the left arm. It was about 5 mm. in diameter and raised about 2 mm. above the level of the neighbouring skin. The surface was scaly and crusted and tended to be moist. A microscopical examination showed the presence of numerous rows of cells and canals which passed down from the epidermis. In Case 4 there was a pigmented *nævus* present on the right shoulder. This showed microscopically a tumour mass in the corium broken up by straight and branching canals lined by epithelium. Solid processes were also present in which the process of canalisation was just beginning. Here and there the canal had widened out to form a cyst containing a polypus-like mass.

The writer carefully analyses the literature on the subject, with special reference to Petersen's, Elliot's, and Rolleston's cases.

The lesions are solitary and multiple, variously sized tumours, and may sometimes have a linear arrangement. They are congenital in origin, and are noticed as a rule in early life. Subjective symptoms are completely absent. The clinical picture is that of a *nævus*. Histologically there is the presence of a large or small number of epithelial processes growing down into the corium which either remain solid and comparatively short, or lengthen and become partially or completely canalised, and may form cysts. Polypus-like growths may protrude into the cysts. Some of them have a striking resemblance to sweat-ducts and cysts forming in them. As they are developed congenitally they are possibly formed from epiblastic processes similar to the embryonic rudiments of the sweat-glands.

J. M. H. M.

ON THE QUESTION OF INOCULATION-CANCER. W. PETERSEN.
(*Archiv f. Dermat. u. Syph.*, June, 1904, p. 312. Two Plates.)

THE usual paths of the dissemination of cancer are by the gradual spread and involvement of contiguous parts by the lymph-stream and by the blood-stream.

A fourth possibility has recently been suggested, namely, through local inoculation, and hence the term "inoculation-cancer." Petersen defines it as a "metastasis of cancer which has resulted from a mechanical breaking away and implanting of cancer cells in other situations without the assistance of the lymph-stream or the blood-stream." This inoculation of cancer cells may take place on serous surfaces, on epithelial surfaces, and on wounds. There is definite evidence, according to the writer, that a cancer may spread on to an opposing surface as a result of the prolonged action of the discharges from the original lesion. These used to be named "impression-cancers," and as an example of them he cites a cancer of one labium spreading across to the other, or a cancer uteri attacking the vagina.

He describes a case of cancer of the uterus in which the vulva and the skin in the neighbourhood became red and eczematous, and later became affected with small cancerous nodules and ulcers. A careful microscopical examination was made of the tissue, and the drawings of the sections which illustrate the paper show that the whole of the skin of the vulva was irregularly infiltrated with small foci of cancer cells. The inoculation in this case the writer considers to have resulted either from the chemical irritation of the cancerous secretion or from the spread of an unknown parasite.

J. M. H. M.

CONTRIBUTION ON ACANTHOSIS NIGRICANS. GROUVEN and FISCHER. (*Archiv f. Dermat. u. Syph.*, June, 1904, p. 225.)

ACANTHOSIS NIGRICANS was first recognised as an entity in 1890 by Pollitzer, and since that time not more than forty cases of it have been reported. This fact shows the rarity of the affection, and renders the record of further cases of interest and importance. The present case occurred in Professor Doutrelepon's clinic, and a detailed report of it forms the subject of this paper. The case was a typical one of the affection, and affected a man aged 34 years. The ordinary sites, namely, the neck, axillæ, genitals, abdomen about the umbilicus, and the mucosa of the mouth and lips were involved; and the clinical characters of the lesion were similar to those which have been repeatedly described, namely, dark-brown, pigmented, irregular, warty patches.

A histological examination revealed nothing which has not been recorded previously. The skin disease in this case was associated with dilatation of the stomach and pyloric stenosis. The stenosis in this case was not absolutely proved by objective symptoms, but was surmised from a careful chemical examination of the contents of the stomach. This observation is of importance, as in a large number of the reputed cases of acanthosis nigricans carcinomatous or other grave lesions of the abdominal viscera have been recorded, and it has been from time to time suggested that there is a causal connection between them and the skin manifestations. Hallopeau put forward the theory that the changes in the skin were associated with a "papillary growth of the gastric mucosa." Darier, on the other hand, believes the skin condition to be the result of a functional derangement or an auto-intoxication of the abdominal sympathetic, and agrees with Burmeister in regarding it as secondary to carcinomatous changes in the abdomen, or the pressure exerted by some benign growth.

J. M. H. M.

STUDIES ON SOFT NÆVI. GINO MIGLIOBINI. (*Archiv f. Dermat. u. Syph.*, July, 1904, p. 413. Four plates.)

THIS paper, which contains a critical survey of much of the recent literature on the subject of the soft nœvi, as well as a record of original work, goes to show that the last word is far from being said on the origin and development of these anomalous congenital growths. The old view of Virchow was that they were "incompletely developed sarcomata," and were made up of cells of connective-tissue origin; the modern and more generally accepted idea is that they are epiblastic, that the so-called nœvus cells are modified epidermic cells, and that if the lesions take on malignant changes, a carcinoma, and not a sarcoma, is the result. But the question seems almost as far from being settled as ever, and the present contribution cannot be said to decide it. The paper is based on the examination of a large number of nœvi of all forms, from small growing ones in children to large ones in adults; some of them were pigmented, while others were not. The writer does not definitely state his position, but reserves his conclusions for a future communication. The excellent coloured drawings which illustrate the contribution show the formation and presence of pigmented nœvus cells in the epidermis and a spreading of these down the lymphatic spaces of the corium. The paper is translated from the Italian by Constantino Curupi.

J. M. H. M.

FIFTEEN CASES OF EXTRA-GENITAL CHANCER, OBSERVED IN 1900, 1901 AND 1902. OHMANN-DUMESNIL. (*St. Louis Med. and Surg. Journ.*, June, 1904, p. 281.)

IN Case 1 two chancres were present, one on the prepuce and the other on the left side of the lower lip. The writer believes that the patient had most probably been infected by a prostitute who had mucous patches of the vagina and of the mouth. In Case 2 two chancres were present also, one on the prepuce and another on the right forefinger. Case 3 was a further instance of double chancre *à distance*, and the lesions were present on the prepuce and the left upper lip. In this case the submaxillary and inguinal adenitis was well marked. In Case 4 the patient was a young married woman, and the chancre was situated on the right lower lip. Case 5 was that of a young woman with a chancre upon the right side of the pharynx directly posterior to the pillars of the fauces. The chancre was about an inch long and a little less than half an inch wide. It was markedly indurated and the surrounding mucosa was congested. In Case 6 the patient was a male infant of nine months. The chancre was present on the buttock, and was associated with a slight maculo-papular eruption. In Case 7 the left upper lip of a young man was the seat of the lesion. Case 8 was that of a man aged forty-five years with a chancre on the under surface of the tongue on the right side. The lymphatic glands of that side became so enlarged that the deglutition of solid foods became an impossibility. The patient was actively treated with mercurials, but with no apparent benefit. Pain of a marked character supervened, and the tongue enlarged to such an extent that he was unable to speak. Gradually the lesion took on malignant characters, and a carcinoma developed which proved fatal. Cases 9 and 10 were physicians with chancres on the right forefingers contracted

in their professional duties. In Case 11 the chancre was situated on the upper lip of a young man. Case 12 was another instance of double chancre affecting the glans penis and the right index finger in a man aged twenty-three years. In Case 13 the right forefinger was also the site of the lesion. Cases 14 and 15 were examples of chancre on the lips.

The majority of the extra-genital chancres referred to in this paper occurred on the upper lip, the next most common situation being the right fore-finger. The most unusual site recorded was that of the chancre on the buttock. In every instance corroborative signs were present which rendered the diagnosis of syphilis a certain one. Another interesting point in the paper is that out of the fifteen extra-genital chancres five were cases of double chancre *à distance*.

J. M. H. M.

THE DOSAGE IN RADIOTHERAPY: METHODS OF PROCEDURE AND INSTRUMENTS. By A. BÉCLÈRE. (*La Presse Médicale*, February, 1904.)

IN this paper the author describes the principles of dosage in radiotherapy and the methods of measuring it. In estimating the dosage of X-rays two factors have to be considered: the quality and the quantity of the rays emitted from an excited tube. The quality is important from the point of view of the site of the lesion to be treated and the proportion of rays absorbed in their passage through the tissues. The rays must be more or less penetrating according to the depth of the lesion; the more they penetrate the less they are absorbed. The quantity is of more importance, for it is a fundamental principle in radiotherapy that therapeutic reaction depends essentially upon the quantity of the rays absorbed. In fact, the law which Kienböck formulated for cutaneous reactions from a series of trials on man and animals may be legitimately extended to all the organs and tissues: "The degree of intensity of the raying depends essentially on the quantity of rays which strikes the skin, that is to say, on the sum of the quantity of rays absorbed by the skin." For the purpose of measuring the quality of Röntgen rays in radiotherapy and the quantity absorbed there is an instrument corresponding to the spectroscope, known as the radiochromometer of Benoist. It is formed of a very thin disc of silver, framed with twelve aluminium plates of 1 to 12 millimetres in thickness. In principle it depends upon the relative power of absorption of silver and aluminium. For instances with rays of slight penetration the silver disc absorbs as much as the first aluminium plate 1 mm. in thickness; rays of great penetration are only absorbed by the last plate of 12 mm. in thickness.

In order to measure the quantity of Röntgen rays Holzknecht, of Vienna, invented an instrument which he called the chromoradiometer. It consists of two parts: (1) a series of single indicators; (2) a graduated scale which serves as a standard. Each indicator (*réactif*) consists of salts, colourable by the Röntgen rays, incorporated in a transparent substance of organic nature, and contained in a little cup. It is this cup which is placed on the skin of the patient close to the region to be treated in such a manner that it receives and absorbs the same quantity of rays as the latter; thus the operation can be stopped as soon as the required amount is reached. The graduated scale is formed of twelve cups of the same kind, enclosed in a box which preserves them from the light; they

are of a green colour, the intensity of which is gradually accentuated from one end to the other of the series. To each degree of the scale there is a corresponding number which indicates the quantity of rays absorbed according to a unit which the inventor has chosen, and which, without defining it, he designated by the letter H.

In order to vary at will the penetrating power of the rays a regulation tube is required, and the one recommended by the writer is the osmo-regulator of Villard, in which hydrogen can be admitted to the tube by heating a piece of spongy platinum fixed to the tube. The author advises the use of an instrument which he calls a spintermeter to estimate the resistance of the tube. This is figured but not described, and seems to consist of a spark gap, the length of which can be varied, introduced into the circuit. If the tube can be easily regulated the choice of the source of the electric energy is, according to the writer, of secondary importance; the therapeutic reaction will be the same with a coil or a static machine, with a large and powerful or a small apparatus. But when they do not give the same quantity of rays in the same time the exposures must be longer with the weaker apparatus for the same distance of the tube from the skin; the exact duration is determined by Holzknecht's chromoradiometer.

It is only by the use of such methods that a common standard can be furnished for workers in all countries in spite of the diversity of apparatus employed. By the help of these instruments the best degree of reaction and the quantity of rays required for various pathological conditions can be estimated. The activity of radium can also be measured by the chromoradiometer, and the author gives the results of some experiments he made with radio-active barium and bromide of radium.

Finally, he concludes that the dosage in radiotherapy can to-day be easily measured, and this ought always to be done as exactly as possible.

S. E. DORE.

SHORT COMMUNICATION ON A CASE OF SCLERODERMIA.

LEONHARD LEVEN. (*Dermatologisches Centralblatt*, Feb., 1904.)

IN this paper the author relates the further course of a case of sclerodermia reported in a previous communication. The patient came under observation about three and a half years ago. The disease, which developed suddenly in the course of an angina, began round the neck, and afterwards spread upwards to the head and downwards to the skin of the waist. The condition of the skin has remained the same: strongly sclerodermic but without real atrophy. Slight improvements which now and then occurred, especially after the persistent use of warm baths, had not lasted. The patient had since married, and after a normal pregnancy gave birth to a healthy child; she suckled it herself, and there was no abnormality to be found in it. The pulse frequency, which had been raised (118—120 and higher) during the whole former period of observation, remained constant. About a year ago a marked swelling of the thyroid gland suddenly developed: this gradually diminished but did not completely disappear, so that a distinct enlargement still remains. Treatment with thyroid and thiosinamine was without effect. The heightened pulse frequency and enlargement of the thyroid gland were salient features, both of which belong to the symptom-complex of Basedow's disease, the raised pulse frequency as one of the most constant and

earliest, the enlarged thyroid as the second symptom of importance. Ehrmann regards scleroderma as an auto-infection, originating in the thyroid gland. Other authors—Grünfeld, Morselli, Raymond, etc., have observed the association of scleroderma with affections of the thyroid gland (Morbus Basedowii, simple goitre, atrophy of the thyroid). Uhlenmuth observed a case in which the thyroid gland completely disappeared. The author considers he was dealing with a case of Basedow's disease, remarkable in the sudden onset and the great extension of the sclerodermatous process which came on at an early period as the initial symptom. He regards it as a further contribution to the cases in which scleroderma is accompanied by the affection of the thyroid gland, without drawing further conclusions.

S. E. DORE.

KERATOMA HEREDITARUM PALMARE ET PLANTARE. J. BÖHN.
(*Dermatologisches Centralblatt*, March, 1904, p. 162.)

IN Bd. xxxiv of the *Archives of Dermatology* Hovorka v. Zderas described a skin disease occurring endemically in the island of Meleda in Süddalmatia, which he originally took to be lepra. His further researches in conjunction with Ehlers convinced him that this conception of the disease, which led him to introduce the new name of "Disease of Meleda" into literature, was erroneous. He characterised this disease by the following symptoms:—(1) Peculiar tylotic, waxy yellow swelling and thickening of the skin of the palms of the hands and soles of the feet; (2) ichthyotic thickening of the skin, especially on the backs of the joints of the hands; (3) sharp outlining of the affected parts; (4) no formation of scales. The upper layers of the skin are greasy, moist, loosened, and exhaling an unpleasant odour of maceration. The general health is unchanged. The disease is hereditary, and arises in the first month of life. On the ground of this publication Neumann arrived at the conclusion that the disease should come under the category of Keratosis diffusa (Lebert), an affection which is congenital or developed soon after birth, hereditary and transmissible, resembling in origin and character goose-skin, warts, nævi, etc., to be placed under the same heading as inherited deformities and classed as an atavistic skin formation. Neumann called the affection Keratoma hereditarium, not Kerat. hered. palmare et plantare (Unna), for the reason that the disease was not in his cases confined solely to the palms and soles, but also attacked the dorsal surfaces of the hands, elbows and knees. Another view of this disease is taken by Thost, Lesser, Neisser and Joseph, who regard it as a partial appearance of ichthyosis and named it Ichthyosis localis palm. et plant. Neisser thinks it is a mistake to separate diffuse ichthyosis of the body from the cases of Kerat. palmare. In many cases of universal ichthyosis the palms and soles are affected although not in such a high degree. As regards heredity, all forms of horny anomalies, especially the high grades of follicular ichthyosis, the so-called Lichen pilaris, must also be taken into account. Voerner favours Unna's title and is opposed to the inclusion of Neumann's cases under it and also to the name of local ichthyosis. Striking symptoms are the symmetry and uniformity, scarcely seen in any other affection, and for which reason one case resembles another in an almost stereotyped fashion. The same formation of scales, the same thickening of the horny layer, the same sharp outlining, the constant surrounding erythema, concomitant hyperidrosis, com-

plete isolation of the affection on the palms and soles, and finally the constant gradual development after birth, are met with. Without entering into the pros and cons of these opposite views, the author describes a case of his own which possessed enough of the characteristics specified by Voerner to be considered under the name employed by him of Kerat. hered. palm. et plant. Inheritance was referable to three generations in the family of the patient, and was present in eleven relatives of the family. One slight difference was apparent in the history of the case, for the patient declared that the affection began in the tenth year of his life. This might be due to the fact that the slightly marked stage of development was overlooked. The writer concludes by giving a genealogical tree and a detailed account of his patient.

S. E. DORE.

PROFESSOR v. TAPPEINER'S LIGHT TREATMENT. By Dr. JESIONEK. (*Münch. med. Wochenschr.*, May 10th, 1904, p. 825; May 31st, p. 965; June 7th, p. 1012.)

DR. JESIONEK gives a short description of the technique adopted by Prof. v. Tappeiner in his treatment of skin-affections by means of fluorescent substances under the influence of light. The part to be treated is painted with a solution of the fluorescent material and then exposed to the action of light. The solution is painted on frequently in order that the part may not get dry. Whenever possible sunlight is made use of since it was found that the solar rays produced a better reaction. Failing sunlight, an arc lamp of 220 volts and 25 ampère capacity is made use of. The part treated is removed about 1½ to 2 metres from the arc. The light is concentrated and the warm rays intercepted by the use of glass globes filled with solutions which only permit the rays to pass which induce fluorescence in the substance used. For eosin a mixture of the solutions of copper sulphate and picric acid is employed. Eosin is the chief fluorescent substance used. The solutions vary in strength: experience has shown that the weaker strengths are more effective, since strong solutions are apt to cause thick crusts that prevent the penetration of rays to the parts beneath and interfere with progress. They use it now from 0.01 to 0.1 per cent. At one time weak eosin solutions were injected, but the practice has been discontinued as unnecessary. In the intervals of treatment the place is covered with boracic acid compresses, zinc plaster, xeroform powder, or ointment.

Dr. Jesionek then proceeds to give the results obtained in nine cases of rodent ulcer and epithelioma. Solutions of eosin, fluorescein, and magdala red were employed in varying strengths. No less than five of the patients developed erysipelas whilst in the hospital owing to which the treatment had to be suspended for a time. In all save one case a very decided improvement appeared in the early days of the treatment. The one exception was a complete failure, and the treatment had to be given up. One case is reported as completely cured after two and a half months' treatment. Three cases relapsed after considerable improvement; one of these improved a second time. One case died of some lung affection. The disease in his case was much improved. Of the rest it is said that they show decided improvement but are not cured.

W. B. W.

THE CHEMICAL PROCESSES DUE TO THE INFLUENCE OF LIGHT ON FLUORESCENT SUBSTANCES (EOSIN AND QUININE), AND THEIR SIGNIFICANCE IN THE POISONOUS ACTION OF THE SAME. WALTHER STRAUB. (*Münch. med. Wochenschr.*, June 21st, 1904, p. 1093.)

THIS is an attempt to throw light on the poisonous properties of fluorescent substances when exposed to light, as discovered by Prof. v. Tappeiner. Raab had previously shown that no hydrogen peroxide or ozone could be detected in the solutions exposed to light. Ledoux-Lebard attributed the action of eosin to some chemical transformation of that body. The author had previously shown that the development of the poisonous property of eosin could be prevented by keeping all air from the mixture by means of an efficient vacuum pump, and that this could be accomplished even while the mixture was exposed to light.

Neisser and Halberstadter had shown that many photo-dynamic bodies acted on silver photographic plates.

The author now points out that if iodide of potassium and starch are added to a solution of eosin and the mixture exposed to sunlight for some minutes, iodine is set free. The stronger the solution of iodide on the one hand, or of eosin on the other, the more active is this separation of iodine. He shows that it cannot be due to the bromine in the eosin, since the same reaction occurs when sulphate of quinine is used.

If a substance with a strong affinity for oxygen be added to the mixture, it can be exposed to sunlight in an open vessel without any separation of iodine. The visible fluorescence can be removed by the addition of acids, but this does not stop the reaction, which, however, occurs much more slowly and feebly. He infers that the eosin molecule under the action of light becomes converted into an eosin peroxide, as also quinine, and that these substances can in this way produce active oxygen.

W. B. W.

STUDY OF HERPES ZOSTER IN CROUPOUS PNEUMONIA. RIEHL. (*Münch. med. Wochenschr.*, June 21st, 1904, p. 1105.)

IN this paper Dr. Riehl deals with the cases of herpes zoster encountered in 481 cases of croupous pneumonia treated in the hospital at Munich during the last ten years.

Herpes occurs in from 30 to 40 per cent. of pneumonia cases, and is far more common in men than in women.

The eruption generally appears on the third or fourth day of the disease.

It is most often met with in the areas supplied by the second and third divisions of the trigeminus, especially that supplied by the infra-orbital nerve.

Herpes is scarcely ever encountered in the pneumonia of children and old people.

The slightest cases of pneumonia may be accompanied by the most extensive herpes, whereas severe cases rarely develop it. Thus herpes has a prognostic significance.

W. B. W.

THE BACTERIOLOGY OF CHROMIDROSIS. RICHARD TROMMSDORFF
(*Münch. med. Wochenschr.*, July 19th, 1904, p. 1285.)

FROM the hairs of a lady who had for a long time suffered from red sweating of the armpits, Dr. Trommsdorff isolated two organisms, a red and a yellow bacterium. The characters of each are given. Inoculation experiments succeeded with the yellow organism, whereby a yellow sweat was produced, but failed entirely with the red.

W. B. W.

THE TREATMENT OF ECZEMA BY MEANS OF THE LATEST REMEDIES. LUDWIG MAYER. (*Münch. med. Wochenschr.*, July 26th, 1904, p. 1343.)

DR. MAYER recommends the use of lenigallol, thigenol, empyroform—a combination of *Ol. rusci* and formaldehyd, which he uses in the following formula :

Empyroformi	.	.	.	.	15·0
Talci venet.					
Glycerini	.	.	.	.	aa 10·0
Aq. dest.	.	.	.	.	20·0

and anthrasol.

W. B. W.

ACUTE NEPHRITIS FOLLOWING THE APPLICATION OF BALSAM OF PERU FOR THE CURE OF SCABIES. A. GASSMANN.
(*Münch. med. Wochenschr.*, July 26th, 1904, p. 1345.)

THE patient, a male aged 26, a potter by trade, appeared to be a strong, healthy man. On two successive nights he was treated, as to about one third of the body surface, with Peru-balsam vaseline, the remaining two-thirds being rubbed with a 30 per cent. sulphur vaseline. The ointment was allowed to remain on all night, and was removed in a bath in the morning. Two days later the patient noticed that the urine was brown, and he felt ill. He developed an acute nephritis with a temperature of 38·2 and 3 per cent. of albumen in the urine, with casts and blood-corpuscles.

Reference is made to two cases mentioned by Henoch in children, to one described by Litten, and to a statement by Vámosssys, that he had met with albuminuria in four out of twenty-eight cases treated with Peru-balsam gauze.

W. B. W.

TO ILLUSTRATE MR HARTIGAN'S CASE OF NÆVUS TREATED BY RADIUM.

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LEPROSY IN JAMAICA.

By E. GRAHAM LITTLE, B.A., M.D., M.R.C.P.,

*Physician to the Skin-Department at St. Mary's Hospital, and at the
East London Hospital for Children.*

THE regulations relating to leprosy in Jamaica date from the year 1877, when a Commission to inquire into the subject of leprosy as affecting the West Indies was appointed by the Imperial Government, and a voluminous Report was issued by Dr. Gavin Milroy. Further important modifications were introduced by the Leper Asylum Law of 1896, upon which the present procedure is chiefly based. By this it is enacted that any leper found in public places is liable to be arrested by the police and brought before a justice of the peace. If the nature of the disease is confirmed by the opinion of a registered medical practitioner, the pecuniary circumstances of the patient are inquired into; and if the patient is destitute and a certificate to that effect is signed by two justices of the peace, the case is then tried in the Magistrate's Court; and if the evidence adduced on these points is convincing, the signature of the magistrate is obtained to the order for incarceration, and the patient is delivered by the constable into the keeping of the medical officer of the Leper Asylum, there to be detained until death or until discharged upon the certificate of the medical officer, confirmed by the sanction of the Governor. Discharges are, however, very infrequent, and are usually due to a modification in diagnosis after treatment. For example, a case of tertiary syphilis was mistaken

for leprosy and discharged, when the true nature of the disease was ascertained, upon representation of these facts by the medical officer to the Governor. The asylum is thus a penal settlement to all intents and purposes, and the patients are subject to disciplinary measures ensuring incarceration and proper behaviour. If the patient is not destitute, he is required to give security by a bond of twenty pounds for his proper maintenance and segregation under private conditions. A patient may also voluntarily apply for admission to the asylum, and in that case the medical practitioner's certificate and the magistrate's order, signed by the Governor, constitute authority for detention, which can be terminated only by the Governor or the order of a judge of the Supreme Court. As a consequence of these enactments vagrant leprosy has been practically extinguished throughout the island. The asylum has at present accommodation for 127 to 130 patients, but is capable of indefinite expansion. It is situated about half a mile out of Spanishtown, the former capital of Jamaica, and is isolated from other habitations. It is composed of six separate pavilions, constructed of wood, as are most houses in Jamaica, and excellently ventilated. The dry-earth system is used in the privies and is quite satisfactory. There are convenient grounds for exercises and games. A farm, worked by the inmates, provides most of the vegetable produce consumed by the institution, and has effected a material decrease in the annual cost, although such produce is purchased from the inmates at fair prices. The hours of the day are apportioned between work and recreation, and the punishments include separation from other inmates, exclusion from seeing friends, reduction of rations, and deprivation of tobacco and small indulgences, with occasional confinement and restraint. The medical attendant is required to visit the institution daily, his authority being represented in his absence by the resident superintendent. Official lay visitors are also appointed by the Governor, and periodical inspections are made. There is a resident matron and several subordinate attendants. The sexes are separated both in the wards and grounds, and suitable work supplied for each. In September, 1904, the distribution of the inmates was as follows: 66 females, 56 males; of these, 47 females suffered from the anæsthetic type of this disease, and 19 from the tubercular type; the ratio was reversed in the case of males, of whom 31 were of the tubercular and 24 of the anæsthetic form.

There are about 12 to 16 admissions in a year and the number is annually decreasing. The average period of detention is measured by years, the oldest inmate having been there considerably over thirty years. The annual death rate is 10 to 13 per cent. The cause of death is almost always some intercurrent disease; nephritis and diarrhoea, the latter, probably, in some cases at least, being really of leprotic causation, are the most frequent terminations. Next in frequency should be placed tuberculosis, which is a common disease amongst the coloured population, from whom almost exclusively the patients are derived. This is no doubt to be ascribed to the bad housing and poor nutrition of the coloured population, who subsist chiefly on yams, cassava, bread-fruit, and farinaceous food. Salt fish is looked upon as a luxury, but is not consumed in large quantities; and the opinion of the medical attendant, who has occupied his present position for six years, was decidedly negative to accepting this factor as in any way causative of the disease. The diet in the institution is comparable to the full diet of our hospitals and is varied and liberal. The annual cost of the asylum, including all salaries and expenses of maintenance, is £2500, an extraordinarily moderate figure for so large and well managed a home.

Upon admission, a form with the following details is filled up for each patient: Name of ward, name of patient, age, sex, colour, religion, form of disease, usual residence, date of admission, place of birth, locality where disease was acquired, occupation, family history, any children, any affected with leprosy, if patient is vaccinated, personal history, when disease developed, what were first symptoms, if resident abroad, where and how long. At the termination of the case the result is added and the period of detention; and the full notes are entered into a record-book. The cases are divided into two types—the anæsthetic, marked *A*, and the tubercular, marked *T*, in the reports and charts. It must be borne in mind that the term “tubercular” throughout this paper is used in its old signification of nodular; it does not convey any suggestion of association with the tubercle bacillus. In the opinion of the present very able medical officer, Dr. Neish, the anæsthetic type is a specific peripheral neuritis, offering no risks of contagion in this stage, and he deprecates the incarceration of such cases. It is the commoner form in females. The earliest symptoms are usually cramps and pains, generally in the

upper limbs ; early thickening of the median and ulnar nerves may be present, as depicted in Vandyke Carter's excellent drawing. Sometimes pigmentary changes precede other symptoms, and in any event when they occur are early concomitants. In the black races the changes are a characteristic depigmentation, the affected skin being a buff colour, and the demarcation of this from the healthy black skin is usually sharply defined. The depigmented patches are at first anæsthetic, or of diminished sensibility. As the disease persists, these patches may recover their pigment and sensibility, fresh places being implicated in the same way. The anæsthesia is also found in parts of the skin not affected with pigmentary changes, and usually begins with the fingers, extending upward to the elbow or higher. The pigmentary changes may occur on any part of the body, but are commoner on the chest and back, and the face and arms. It is unusual to find tubercles with anæsthetic leprosy pure and simple; but a case originally tubercular in type may closely simulate the anæsthetic variety, and definite anæsthesia is not infrequent in distinctively tubercular forms of the disease. The simulation of anæsthetic forms of the disease by cases originally tuberculated is rendered closer by the effects of injuries, such as burns, which cause extensive loss of tissue on the non-sensitive skin. The occurrence of tubercles in the course of a distinctively anæsthetic case is rarer; but such a case was amongst the patients and will be described hereafter. Later in the evolution of the anæsthetic type of disease comes the wasting of the muscles of the thenar and hypothenar eminences and of the palm generally, with exaggerated flexion of the fingers into the palm. Then by a very slow process, lasting many years, a gradual absorption of the bones of the phalanges takes place, and the crooked fingers become straightened out by the absorption of the arched portion, the nail being preserved intact sometimes until quite late in the disease, when the entire phalanges may have disappeared, and the nails appear inserted, like raisins, in the stump formed by the hand behind the level of the metacarpal joints. Almost invariably the digits of the foot become altered in the same way. These changes are frequently in very early stages asymmetrical, one hand, usually the right, becoming deformed before the other is affected, but in the latest stages the damage is nearly equal on both sides. The mutilation as a rule

ceases with the loss of the fingers and toes, but may go on to the destruction of the entire hand and foot. The skin of the anæsthetic limbs is generally harsh, wrinkled, and often scaly. Perforating ulcers, for the most part occurring on the sole of the foot, are frequent and may persist for years—in one case, recorded later, for five years. With this exception, ulceration is infrequent in anæsthetic leprosy, although the non-sensitive surfaces are sometimes the seat of intractable sores, due to traumatic causes of various kinds. It is the experience of the asylum that smokers fare worse in this respect owing to frequent burns from lighted pipes. Hansen's bacillus is not found in these ulcerations, even of the perforating type.

The disease in the tubercular type is far more distressing, more painful, and usually more rapid. The earliest symptoms are often the nodules themselves, occurring generally on the face or ears. The eyebrows become puffy and œdematous, overhanging the orbit, and the hair of the eyebrows is generally shed very early. The scalp is extremely rarely affected. Sometimes bleeding of the nose is remarked in the commencing stage. The nodule at its first appearance is not unlike its lupoid congener. In the dark races the inflammatory redness is less obvious, and may be missed. A stage of "leprotic fever" coinciding with the eruption of tubercles is sometimes seen, but the wide prevalence of malaria makes it likely that any patient with leprosy will have had malaria, and these changes of temperature are of doubtful causation if not actually malarial. The tubercles may persist and grow for many years without ulceration; or, less commonly, they may ulcerate rapidly after formation. Instead of the nodular formation, the earliest lesion may be a plaque, raised like an urticarial lesion and of a dusky red. These plaques frequently occur on the dorsum of the hands, on the forearms, and trunk. In one case, on the point of both elbows cushion-like tumours as big as a five-shilling-piece were present; probably this incidence was determined by pressure. Pigmentary changes, while commoner in the anæsthetic variety, may be found with the tubercular forms; and anæsthesia, with or without pigmentary change, is frequent. Various paralyses may occur, especially facial, resulting in the relaxation of the muscles of the mouth and the dribbling of saliva such as most of us have experienced who have found ourselves

in the grip of a dentist's gag. The pouring of spittle over the chin seems to determine fresh growths of tubercles in that part, and huge pile-like masses are not uncommon here. It is pitiful in these cases to see the leper supporting with his truncated hand his lower lip and jaw to insure apposition of the lips. The articulation of labials becomes defective as a natural consequence and the speech slurred. Tubercles frequently occur in later stages on the mucous membrane, especially on the hard palate and in the nose; in the latter position ozæna and rhinitis, often very offensive, result. Ulcerative changes are sometimes met with in the intestines, and are probably caused by the bacillus in the same way as the intestinal ulcers due to the tubercle bacillus. The diarrhoea so common in leper asylums may be due to this fact—in some instances, at least. Dr. Neish holds the view that the nephritis, also common, is due directly to leprosy, possibly to trophic disturbances in the nerve-supply to the kidney, since it is commoner in the anæsthetic variety of the disease. Ocular paralyses are frequent, and, as suggested in the discussion of an individual case below, result in permanent blindness from chronic conjunctivitis and corneal ulceration. In a few cases only is the conjunctiva invaded by the lepra bacillus.

The difficulty of obtaining any degree of accuracy in the compilation of the history of the acquisition of the disease may be imagined with an illiterate and superstitious people inclined to ascribe every ailment to supernatural causes, and moreover directly interested, as they suppose, in the suppression of facts of leper inheritance. A notable increase in the spread of the disease some years ago is ascribed to the return of many natives of Jamaica from Colon after the cessation of the works in connection with the Panama Canal. It will be seen in the following notes how frequently the disease appears to have been contracted there. Vaccination having been suggested many years ago as a means of spreading the disease, the facts of vaccination are, by order of the Government, to be ascertained in every case admitted to the Home. No evidence of contagion in this way has ever been recorded since this regulation was adopted. By the courtesy of Dr. Neish I have been enabled to take some notes of the cases which afforded any points of particular interest, and the selection may be taken as being representative of what I saw during my visits to the asylum.

CASES.

William J—, aged 50 years, black, admitted in 1890 with a history of having had the disease for six years. No family history of leprosy obtainable. Has marked anæsthesia to the level of the elbow, with extensive contraction and deformity of the fingers and toes. The first symptom was pigmentary change, but the colour of the altered patches has now returned, and with it sensation is also normal in these previously insensitive patches. Has a perforating ulcer in the right toe (plantar surface). The orbicularis oris is paralysed and the saliva flows over the chin. This is a purely anæsthetic case with no nodules on the skin.

William B—, aged 45 years, black. Tubercular leprosy. Admitted September, 1900. A native of Colon, where the disease is very prevalent. He denied any leper connections or associations, and stated on admission that the disease had commenced four months previously, an obvious impossibility from the extent of the lesions present. The disease began with nodules on the face. The eyebrows are swollen and the hair has been shed. Has now very numerous nodules on the face and the fleshy part of the ears. No mutilation.

William J—, black, aged 40 years. Tubercular leprosy. In this case the family history seemed definitely negative, both parents being alive and well. He has four brothers, three sisters, and one child, all free of the disease. He contracted it fourteen years ago, the first symptoms being muscular cramp and loss of sensation. Now has numerous tubercles on the face; the date of advent unknown. He has been in the institution for two years. This seems one of the uncommon cases of early anæsthetic leprosy becoming later tubercular in type.

Joseph R—, black, aged about 40 years. Tubercular leprosy. Admitted 1898. The disease had lasted then for three years, and had commenced with maculæ on the chest. No family history could be obtained. At the present time his back, arms, hands, shoulders, chest, face, ears, and lips are covered with large tubercular masses. The hands are swollen, with numerous traumatic ulcers on the dorsum

and fingers. There are velvety tubercles on the hard palate. The skin of his lip is scaly and fissured. There are no mutilations.

Augustus H—, black, aged 30 years. A native of Kingston, but passed four years in Colon, where he states he contracted the disease, about 1894. The first symptom was the appearance of black spots on the face, followed by the eruption of "lumps." At the present time there is extensive involvement of the face, but not elsewhere. The hands are anæsthetic and have suffered much from burns. No family history and no leper association could be established; but his work (as a navvy) in Colon would probably expose him to contact with lepers.

J. M—, a half-caste, nearly white in colour, a young man aged 20 years, with extensively ulcerated ears, and no tubercular formation until lately, when four distinctive nodules have developed on the cheeks. The case at first appeared to be lupus, until the eruption of nodules established the character of the disease. The early ulceration is unusual.

Peter H—, a black man, admitted 1892, at the age of 26 years. He had been a stoker in Colon for six years from 1885. He had no family history of leprosy and had two healthy children. Has now numerous tubercles on the face, forehead, lips, *alæ nasi*, and ears. There had been extensive ulceration, and a course of treatment with thyroglandin was tried with a remarkably excellent result, the ulceration ceasing and the tubercles shrivelling. The dose was three grains, three times a day, and was persisted with until thyroidism developed.

John S—, a native of Kingston, admitted 1897. This was an interesting case illustrating the difficulty of obtaining accurate histories of family disease, a difficulty which has no doubt been increased by the penal legislation of the past ten years. This man was admitted to the Home and strenuously denied all leper connections, until he was confronted with his half-brother, an inmate of the Home. The source of infection for both lads was probably their common mother, who is stated to have died of "consumption." The first husband (S—) predeceased his wife, and the son John ran away from home on the advent of the stepfather (H—). He met his stepbrother, born after J. S— left, for the first time in the Home. Another stepsister

was also admitted later into the Home with leprosy, and both step-children died with this disease. In all three cases the disease was of the tubercular type.

Cecilia B—, admitted 1899, aged 29 years. A half-caste woman, who denied leper connection or association. She has the anæsthetic type, well-developed, with the usual mutilations of the fingers and toes, and also a perforating ulcer of the foot, which has persisted for five years. Here also confirmation of infection was afforded by the admission of the husband, who died of tubercular leprosy in the Home, and quite lately the daughter of the union, Clara, a child of eight, has been admitted with characteristic tubercular leprosy, which is running a very acute course.

Elizabeth M—, aged 34 years, black. Mixed type. This case is interesting in the fact that she has been eight years in this Home, the subject of pure anæsthetic leprosy, which has resulted in the loss of some fingers of the right hand and commencing wasting of the left. Within the last six weeks she has developed characteristic tubercles on the cheek, nose, and back of hands. No family history was obtainable.

Elizabeth M—, aged 35 years. The subject of tubercular leprosy, probably acquired in Colon. Parental infection was denied. She lived in Colon for ten years. The disease commenced on the face. Her daughter Miriam was admitted into the Home three years before her mother, and on admission gave a negative history, which was duly refuted on the advent of the patient recorded above. The daughter had lived with her mother for three years in Colon, and was admitted at the age of 17. This girl now has extraordinarily large angry-looking tumours, some the size of a walnut, studded closely over the face, with ominous signs of ulceration. She has typical tubercular plaques on the dorsum of the hand, on the fingers, and the arms, and is saturated with the disease.

Alice S—, aged 10 years. This is an early case with extensive pigmentary changes, on the neck, face, chest, back, and buttocks, and commencing contraction of the fingers, especially of the left hand. She has definite anæsthesia and the typical moniliform thickening of the ulnar nerve above the elbow. It is interesting to note that she

has the scars of yaws on the thighs and buttocks. This patient's grandmother died in the Home with tubercular leprosy. The mother also is dead, but the cause of death is unknown.

Jane N—, admitted 1904, aged 11 years. Tubercular leprosy, of an acute type, with large angry-looking tubercles on the face, ears, and nose. Eyebrows swollen and denuded of hair. Disease is said to have commenced five years ago. One brother died, a leper, in the Home.

Viola W—, admitted 1899, at the age of 9 years. Half-caste girl, with dubious parental history; but a maternal aunt died with tubercular leprosy, in the Home. This case was interesting for several reasons. The disease commenced with an eruption of bullæ on the legs, followed by livid patches on the cheeks, and tubercles. The tubercular lesions are very small (the size of a split-pea) and numerous, and are grouped in the manner described as herpetiform, several of such groups being scattered over the face, chin, and back of hands, with nodules on the ears, lips, and nose. An inter-current attack of enteric fever occurred, during which it was noted with surprise that the tubercles disappeared, to reappear later. This suggested the use of Marmorek's antistreptococcic serum, which was obtained from the Lyons Institute by mail steamer every fortnight, an injection being given on arrival. The results were very uncertain, some rise of temperature being produced after certain injections, others proving apparently inert. The treatment was consequently abandoned, on the supposition that the serum could not be obtained in a sufficiently fresh condition.

Anne L—. A case of anæsthetic leprosy of many years' standing, with the usual mutilation of the hands and feet. The case was interesting in the conjunction of leprosy with elephantiasis (filarial) of the vulva, from which a swelling, the size of a pumpkin, depended.

Augustus B—, aged 37 years, a fisherman, half-caste, admitted 1897. Denied family history, but one sister died in the Home, a leper. The disease commenced fifteen years ago with red spots on the face, anæsthesia, and contraction of the fingers. He was now the subject of Bright's disease, of which he was probably to die.

Daniel C—, a half-caste, aged 24 years. The pigmentary changes

were here extraordinary in their extensive distribution—the face, chest, forearms, shoulders, neck, back, buttocks, and thighs being affected. He had no family history of leprosy, but contracted yaws in 1896, and leprosy developed soon after. The disease remains of the anæsthetic type, and the loss of finger and toes has begun.

Jacob P—, an old case of tubercular leprosy, interesting in the occurrence of a leprous tubercle on the conjunctiva. Eye changes are common in leprosy, especially of the anæsthetic type, and are explained as being the result of foreign bodies entering the eye, which is insensitive, and so the bodies remain and produce ulceration of the cornea, which frequently destroys the sight. These changes are thus not directly due to leprosy; but in this case the injury was caused by a definite infective tubercle.

Marian W—, who had been a slave, and had had leprosy of the anæsthetic type for fifty years, the longest history obtained in the asylum. There was facial paralysis and complete absorption of the fingers and toes, and the right foot had lost the metatarsal and some of the tarsal bones as well, so that it presented a sharply-pointed instead of a spatulate extremity. The digits had gone on the left foot, but the base of the foot was less damaged. She had lost all the fingers and the greater part of the hand on both sides, the appearance being that of an amputation stump. No details of family history could be ascertained in this case.

I have mentioned the opinion of the present medical officer deprecating the detention of cases of the anæsthetic type, which he regards as not in any way contagious. He is also convinced of the small degree of infectivity even of the tubercular variety, and instances his experience when this asylum was open equally to patients affected with yaws. These cases were in constant association and contact with lepers, and no case was recorded of contagion with leprosy. Further, no attendants in the asylum have been infected. In the course of conversation with Dr. Impey, some months ago, I gathered the impression that he held very similar views to these, as a result of his great experience in the leper settlement on Robben Island, near Cape Town.

If one leaves the institution with some painful doubts as to the justification of the policy of complete segregation, one is at least

partially consoled at noting the comfortable condition and content of the inmates. Attempts to abscond are rare; the patients seem singularly happy and well cared for, and it was really a curious spectacle to see men possessed of but fragmentary hands playing croquet with unexpected success. The wards are cheerful and well lighted, and there was no suggestion or indication of any offence to any sense in the observer, whether of smell or sight.

The treatment pursued in the institution is naturally for so chronic a disease chiefly on hygienic and general principles. Dr. Neish personally favours the subcutaneous injection of soluble salts of mercury. He makes the statement that all cases are improved by it, the anæsthetic type with more certainty than the tubercular. Chaulmoogra oil, both internally and by injection, is also used; the first process is very difficult to follow for any length of time owing to the nausea and dyspepsia it causes. The injections promise better results.

No X-ray or Finsen apparatus is supplied to the institution as yet, to the great regret of the medical officer, so that no report of the result of these therapeutic agencies is possible.

I cannot conclude this paper without an expression of warmest thanks to Dr. Neish and his assistant at the Leper Home. I was accorded every courtesy and assistance, and Dr. Neish in particular spent several hours in helping me to trace the notes of the cases I have described. The conspicuous well-being of the patients and the general cheerfulness of the Home are the most eloquent testimony to the sustained enthusiasm which he brings to his work, and which is reflected in the careful records I have been permitted to investigate and use.

THE TREATMENT OF "PORT WINE" NÆVUS BY RADIUM BROMIDE.

By T. J. P. HARTIGAN, F.R.C.S.,

Assistant Surgeon, The Hospital for Diseases of the Skin, Blackfriars.

THE following are the details of a case which I exhibited on the invitation of the Dermatological Society of London, at the last meeting of the Society.

The patient, a woman, aged 26 years, was born with a large "port

wine" nævus covering the left cheek and side of the nose. Vertically it extended from the margin of the lower eyelid to the edge of the upper lip, and laterally from the centre of the face to a line drawn from the angle of the mouth to a point midway between the outer canthus and tragus.

Its extent and position are now roughly indicated by the accompanying photograph, taken a few weeks ago. The nævus was of a reddish colour with a slight purple tinge, and near the margin of the orbit there were also a few obviously dilated vessels.

The disfigurement was marked, and for this the patient sought relief towards the end of last year.

Having had a personal experience of the dermatitis following the application of radium to the healthy skin, and noticing its effects on diseased tissues—*e.g.* lupus, rodent ulcer, etc.—I was led to the conclusion that it would, by setting up a somewhat prolonged reaction, produce obliteration of the vessels, thus removing what has hitherto been regarded as an irremediable deformity.

Here I may mention that the two specimens of radium used in the case weigh 10 mgr. each, and are, I am assured, of the highest known radio-activity. The applicator is the same as the one I described in this journal last March. Where it is desired to limit its action to a very small space, as in dealing with the edge of the eyelids, the button containing the salt can be removed and used alone. Care is necessary to avoid epilating the cilia. Usually within twenty-four hours an erythema occurs, with a slight pricking sensation, and vesicles appear. These, on drying up, form a scab that falls off in a week or ten days, leaving behind it a thin white skin. Many of these pale areas are shown in the photograph, but they are more numerous than there depicted, and it gives no idea of the general fading of the whole nævus, which is considerable. The black spots are scabs, the result of recent treatment. At first boracic ointment was used to the treated surfaces in the intervals between the patient's visits, but latterly compression by the application of collodion appears to hasten the result.

The treatment has now extended over nine months, during which time she has had thirty-nine exposures in all, varying in duration from a half to one hour. Residing at a distance, she has not been able to attend more than once a week, and there are reasons to

believe that with more frequent attendances the result achieved would naturally be proportionate.

At present there is comparatively little to be seen. With the exception of a few small untreated areas, it has entirely disappeared, and the condition that previously existed cannot now be traced. The result, in the opinion of those present, was "considered distinctly encouraging." I have to thank Dr. Galloway for the opportunity afforded me of demonstrating the case at the meeting referred to, and Messrs. Johnson and Matthey, of Hatton Garden, and Mr. Cossor, of Farringdon Road, for placing their radium at my disposal.

SOCIETY INTELLIGENCE.

THE DERMATOLOGICAL SOCIETY OF LONDON.

AN ordinary meeting of the above Society was held on Wednesday, November 9th, 1904, Mr. Malcolm Morris in the Chair.

The following cases, specimens, and photographs were brought forward:

Dr. J. M. H. MACLEOD showed (1) *a case for diagnosis*. The patient was a boy aged 9 years, who presented on the skin of his thighs and arms about a dozen peculiar *brownish-yellow pigmented lesions*. These were irregular in shape and size, the largest being about a quarter of an inch in length. A few of the lesions had the appearance of being composed of small blood-vessels, but in the majority of them the pigment was diffuse, and there was no suggestion of vessels. The lesions were first noticed by the mother, ten months before exhibition, and they were not preceded by any inflammatory disturbance. There were no subjective symptoms associated with them. The general health of the boy was good, and there was no history of any previous illness which could have accounted for the condition of his skin. He showed evidence, however, of a weak peripheral circulation, in that he was subject to chilblains and presented the peculiar mottling of the skin of the arms and legs which commonly occurs in babies with feeble circulations when exposed to cold.

In addition to the pigmented lesions there was also present an unusual condition of the eyebrows. These were red, slightly swollen, and dotted over with small beads of perspiration. The diagnosis of the case presented considerable difficulty. The pigmented lesions suggested the affections described by Schamberg, under the title of "A Peculiar Progressive Pigmentary Disease of the Skin" (*British Journal of Dermatology*, 1901, xiii, p. 1). Against that view was the absence of a history of the previous reddish puncta or dots which preceded the pigmented lesions in Schamberg's case. The general opinion of the members was that the lesions were small angiomata, and that the diffuse ones were the result of pigment having been deposited from the vessels. With regard to the affection of the eyebrows, it seemed to be an inflammatory disturbance, the result of localised hyperidrosis.

(2) A section of an *epithelioma* which developed in a case of *Lupus vulgaris* while under treatment with Finsen light. The patient was a woman aged 68 years, with *Lupus vulgaris* affecting the whole of the face and spreading up to the margin of the hair and down on to the neck. Practically the whole of the face, with the exception of a small area below the under-lip was affected by a superficial sheet of tubercular infiltration. The disease began when she was about 14 years old, and it had been subjected to many forms of treatment. Two years ago exposures to Finsen light were begun, and they had been continued almost daily since then. At first the modified Lortet-Genoud lamp was employed, and latterly the Finsen-Reyn. About a year ago a small warty growth appeared on the cheek, which was excised and did not recur. Four months ago a somewhat similar lesion appeared on the right cheek and quickly grew to the size of a sixpence. It was then subjected to a series of exposures to the X-rays, but with no distinct benefit, and this was the first time that the X-rays had been applied in the case. In four months the lesion had reached the size of a shilling. It was excised by Mr. H. F. Waterhouse, and on microscopical examination it proved to be an *epithelioma*. Had the X-rays been employed before the development of these lesions they would naturally have been blamed, and the possibility of the prolonged exposure to the Finsen light in an elderly patient being capable of setting up epitheliomatous changes had to be considered. There was no definite evidence,

however, that the epithelioma was in any way connected with the light rays, and the various cases of *Lupus vulgaris* in which epitheliomata had developed, reported before the introduction of phototherapy, showed that it was not necessary to seek a causal connection between the two.

In the discussion which took place Mr. MALCOLM MORRIS said that he considered that the number of unfortunate cases of this type had not been increased since the introduction of photo-therapy.

Dr. J. A. ORMEROD showed *a case for diagnosis*—a boy, aged 12 years, who lived at Southampton, and whose previous health and family history were good. The complaint began about three and a quarter years ago, with itching of the body, followed by “boils” on the abdomen and limbs. It was ascribed to a salt-water bath. A year later the eruption spread to the face.

When first seen, some four months ago, there was a copious eruption of small red thickened nodules, mostly capped by a scab. Scabbing, crusting, and signs of irritation were a much more marked feature then than when exhibited. The eruption was most plentiful on the limbs, and more so on their extensor-surfaces. There was some on the trunk, but here the active stage of the disease appeared to be passing off. The face was nodular and thickened; there were a few points of scabbing on the scalp. Further, the skin of the limbs was dark in colour and thickened in texture, and there was pigmentation and much scarring upon the trunk. The glands of the neck and axillæ were swollen, and the inguinal glands were much enlarged.

There had been improvement; thus there was on exhibition no active disease on the trunk, and but little on the limbs, and the swelling of the glands had diminished. But fresh outbreaks had been seen on the hands and on the face. On the hands, besides redness and swelling, there were vesicles and bullæ, few in number but distinct; on the face the eruption began as small red nodules, which became capped with a vesicle and ulcerated in the centre, forming a scab. These were accompanied with general redness and swelling.

His temperature rose occasionally, but his general health was good.

On exhibition his condition was as follows: On the face and forehead there were patches and nodules of red indurated tissue. Scabbing was comparatively slight. The neighbourhood of the nares and mouth

(a circum-oral zone like that described in scarlet fever) was quite free. On the limbs there were pigmentation, induration, and scarring, with remains of thickened nodules, particularly on the hands. The palms and soles and the flexures of the thighs and knees were free. On the trunk there was much pigmentation, partly diffuse, partly gathered around the sites of the numerous scars which appeared to mark the site of former nodules. The glands of the neck and groin were still enlarged, though much less so than before.

The following diagnoses had been offered: Hebra's prurigo (from the appearance when first seen); Dermatitis herpetiformis (from the outbreak of vesicles and blebs on the hands); leprosy (from the aspect of the face); tuberculide (the diagnosis made by the French physicians who saw him in October). Microscopical sections, prepared by Dr. Thursfield, had thrown no light on the disease, and no micro-organisms had been found in them.

Mr. GEORGE PERNET showed (1) a case of *Xantho-erythrodermia perstans* in a private patient, a robust and vigorous gentleman aged 29 years. The skin condition commenced about the sides of the trunk when the patient was in Upper Egypt. The patches were then thought to be parasitic (*Tinea versicolor*), but no fungus was ever found, although search was made for it. It was three months before the rash began to generalise, when it came out symmetrically and in crops. Symmetry was a marked feature, for the patient had observed that when a patch appeared in one limb, for instance, a similar patch would sooner or later arise on a symmetrically corresponding area on the opposite limb. The patches did not appear to increase in size once they were out; and once out they persisted. Mr. Pernet first saw the case in April, 1903, when a number of disseminated well-defined patches were present about the trunk, shoulders, arms, and the flexures of the forearms. The elbows were free. There were also some lesions on the inner side of the knees in front, and also about the neck. The patches varied in size from that of a small fingernail to a florin, and in shape were circular or oval or somewhat irregularly elongated. In colour they were of a pale red or yellowish-red, becoming paler when the patient undressed in a cool room. They were very slightly scaly here and there. On the trunk, especially behind, the symmetry was well marked, and in this situa-

tion the elongated patches predominated, their long axes following the lines of cleavage. The patches exhibited superficial infiltration, and this was more marked on the calves than elsewhere. To some of the patches the patient had applied iodine, but notwithstanding the ensuing desquamation, they remained as they were. An important feature, again, was the absence of itching. The rash had got worse, and more abundant, as a result of a stay on the West Coast of Africa. The patient then found some of the patches were painful when lying on them, apparently from pressure. Since he had been home, he found that he sweated profusely, which was quite unusual for him. Mr. Pernet had also examined scrapings a year ago, but he had found no trace of fungus. Apart from the rash, which gave him no inconvenience, the patient was in sound health. A year ago salicin had been ordered by the exhibitor, and under it the rash had become somewhat paler.

(2) Two cultivations on proof agar of cat microsporon, from the hairs of the kitten concerned in the *Tinea circinata* case brought before the Society in July last.* At that time Mr. Pernet had shown a microscopical preparation of the kitten hairs, and pointed out that the appearances were similar to those observed in human *Microsporon Audouini*. The present cultures corresponded to those obtained by Dr. Colcott Fox from cat microsporon. Both were pure, but originally one of the tubes had become contaminated in the upper part of the medium by a green mould, which had been effectually destroyed by carbonizing over a flame, and thus preserved the purity of the ringworm growth. Mr. Pernet had found that cultivations prepared in a certain room were frequently contaminated, whereas those made in another room were very rarely so. This was a point of interest. In the former room, which was rather damp, the air was no doubt laden with spores of common mould. In such a room, urine in uncovered urine glasses rapidly became mouldy.

Dr. J. J. PRINGLE demonstrated (1) a case under the care of Dr. Kingston Fowler in the Middlesex Hospital. The patient was a married woman, aged 28 years, who had never been pregnant, and whose history revealed nothing suggestive of syphilis; nor could any tuberculous family history be elicited. She had suffered from mild epilepsy, winter cough, and anæmia. She was admitted to hospital

* *Vide Brit. Journ. of Derm.*, vol. xvi, No. 9, Sept., 1904, p. 347.

on August 19th, complaining of progressive weakness of eight months' duration, with loss of appetite and amenorrhœa. She was markedly anæmic, but no abnormal physical signs were detected in the vascular or respiratory systems. There were considerable masses of indolent enlarged glands beneath the pectoral muscles on both sides and some of the cervical glands were also slightly enlarged. Attention was first drawn to a papular eruption in various parts of the body on September 19th, and there seemed good reason for believing that it made its appearance somewhat suddenly at that date.

Dr. Pringle first saw the case in consultation on October 13th, when he expressed the opinion that the rash was of a tuberculous nature. The lesions were of two distinct types; on the backs of the fingers and hands, and about the wrists and lower forearms, as well as on the dorsal surfaces of the feet and several toes, were numerous hard nodules ranging in size from a pin's head to a pea, many of which—presumably the more recent—showed suppurative points in their centres, and others central necrotic pits. These corresponded to the type of disease formerly described as "*acne scrofulosorum*," or more recently as "*folliclis*" and "*acnitis*"—terms which the exhibitor deprecated. Precisely similar lesions of acneiform type but of smaller size, and of more recent occurrence, were also present on the pinnæ of both ears; and scattered sparsely over the front of the thorax and face were somewhat similar papulo-pustules; but these latter were considered by the exhibitor as of dubious significance.

Lesions of the type first distinctly described by Hebra as "*Lichen scrofulosorum*" were present in considerable abundance over the back, in the form of shiny lichenoid papules of small size arranged in groups, many of which were roughly circular in outline. Careful examination shows that the majority of these had a distinct central depression, and were manifestly connected with follicles. Since the patient first came under observation, this lichenoid eruption had undergone marked spontaneous involution.

The glandular masses present had been observed to vary in size not only from day to day, but even at different periods on the same day, and the enlargement of cervical glands noted on admission to hospital was no longer discernible when the patient was exhibited. As to the possibility of the case being one of Hodgkin's disease, careful "blood-counts" had been made with the following results:

	September 2nd.	October 8th.
Red corpuscles, per cubic millimetre .	4,410,000 .	2,050,000
White " " " .	8000 .	7500
Hæmoglobin percentage .	56 .	33
Hæmoglobin index .	·57 .	·724
Poikilocytes .	None .	None
Nucleated red blood-cells .	None .	A few
<i>Analysis of Leucocytes :</i>		
Lymphocytes .	33 per cent.	23 per cent.
Hyaline and transitional cells .	6·6 " .	5 " .
Polymorphonuclear cells .	57·3 " .	68 " .
Eosinophile cells .	2·3 " .	1 " .
Mast cells .	·6 " .	3 " .

There had been no rise of temperature throughout the progress of the case.

Dr. Pringle drew attention to the remarkable accuracy of Hebra's original time-honoured description of Lichen scrofulosorum, and especially to his observation of its association with the acneiform tuberculide which constituted the feature of salient interest in the case exhibited. In none of Hebra's fifty cases were pulmonary tubercular changes present, and all were males ; but many cases in females had since been recorded.

He also referred to Dr. Pautrier's recent admirable monograph on the subject of "les tuberculoses cutanées atypiques," which constituted an excellent *résumé* of the subject, with many illustrative cases and a copious bibliography.

(2) A curious case of *papillomata of the abdominal wall* in a woman aged 57 years. The warts had been present for more than six years, and were situated in the left ilio-inguinal region. They had been observed to extend peripherally from an original central lesion, having healthy skin in the centre. They now formed an irregular ring measuring nearly three inches in diameter, the margin being made up of contiguous warts, each about as big as a fourpenny-piece, and raised nearly a quarter of an inch above the general skin level, and all deeply pigmented. On microscopic examination one of the warts proved to be a pure papilloma ; but all members present agreed with the exhibitor that their removal, either by operation or by photo-therapy, was desirable in view of possible future malignancy.

Dr. SEQUEIRA showed a little boy, aged 3½ years, suffering from *Epidermolysis bullosa*. The skin had been affected since the child

was a month old. The father and mother were in good health, and they had two other children whose skin had never presented any abnormality. No similar condition had been observed in any relative.

On admission to the London Hospital, on October 13th, 1904, the child was found to be well developed and well nourished, and there was no evidence of visceral disease. The skin on the extensor surfaces of the arms, forearms, legs, and thighs, and on the buttocks, was covered with a vesicular eruption. The individual lesions varied in size from a small pea to half a walnut. Some of the bullæ contained clear fluid and others blood. On parts exposed to pressure—the points of the elbows and knees and the buttocks—there were numerous raw surfaces, the sites of ruptured bullæ. On the face the sole lesion was a small bulla on the upper lip. On the chest, abdomen, and back there were a few dried scabs on the sites of old bullæ. There was a remarkable development of milium upon the knuckles, wrists, and ankles, and upon the thighs and buttocks, in the positions in which bullæ had previously developed. The milia were very closely placed, and covered extensive areas. Some of the finger- and toe-nails were deformed, the nails being represented merely by small, yellow, horny pegs.

The case was of interest, as the patient was the only member of the family affected, and there was no history of heredity. A similar, but less severe, instance was shown by Dr. Sequeira last year, and in this case the patient, a little girl, was the only member of the family with this abnormality of the skin, and there was no history of heredity. The family history of both these cases had been very carefully investigated. It was, perhaps, also worthy of remark that milium was also a prominent feature in this patient, as in the case now described.

Dr. WHITFIELD said that the sporadic were more numerous than the family cases, and the family cases in one generation more numerous than those in a descending line. For this reason many observers objected to the term "hereditaria," and as a matter of fact it was usually omitted.

Mr. ARTHUR SHILLITOE showed a case of *dysidrosis*.

The patient was a labourer, aged 42 years, married, with three children.

The patient said his general health and appetite were good. His

tongue was clean, his bowels acted regularly, and his urine was normal. He took on an average a pint of beer per diem and no spirits. He perspired freely, and had never had syphilis. He had always had constant employment, and had had no worry nor anxiety.

About ten weeks ago he was cleaning out the drain from a sink and received a scratch on the dorsal aspect of the interspace between the second and ring fingers of the right hand. This he treated with vaseline, but it never healed. On October 21st he noticed that his hands, especially the backs, were becoming affected with blisters, and on October 30th he consulted a doctor, who sent him on to Mr. Shillitoe on November 2nd.

The original sore on the right hand was not healed. Both hands, the left more so than the right, were affected with a vesiculo-bullous eruption. The lesions varied in size from that of boiled sago grains up to bullæ the size of a sixpence; the contents of the latter were in some cases purulent. On the palmar aspect the eruption was seen to occupy chiefly the thenar and the hypothenar eminences. The right palm was free and there were two small vesicles in the centre of the left. The nails were not affected, and the eruption did not extend beyond the wrists. The right epicondylar gland was enlarged but not tender. The patient stated that the eruption came out, as seen, within two days of the 21st of October. The feet were not affected. There had been very little irritation, except when sitting in front of a fire.

Dr. WILFRID WARDE showed three cases of *endothrix ringworm* in children, members of the same family. They presented clinical features corresponding to the "bald" type of ringworm. A scraping of three of the patches had, however, revealed no ringworm fungus, but Dr. Colcott Fox succeeded in discovering two stumps which proved to be full of mycelial chains. This fact, taken together with the clinical feature, made it practically certain that the disease was *Trichophyton endothrix*. The youngest child had been affected for no less than five years, and the next nearly as long.

Dr. WHITFIELD showed (1) a little boy suffering from *Pityriasis rubra pilaris* (shown to the Society before on November 12th, 1902: see *British Journal of Dermatology*, vol. xiv, p. 470).

When shown before it was noted by the exhibitor and by Dr. Colcott Fox that the follicular papules were in every instance covered by a little cap of scale rather than by the characteristic horny plug, and on this account Dr. Whitfield said that he would hesitate to give a positive opinion that the case was one of true Pityriasis rubra pilaris, rather suspecting that it might turn out to be a case of follicular psoriasis. The child was taken into hospital and carefully watched, so that the sequence of events could be accurately noted. The first change was very remarkable, and consisted in the rapid peripheral enlargement of each of the papules, so that some of them attained a diameter of at least a quarter of an inch. This was followed by complete loosening and shedding of the scales, so that the case appeared to be rapidly improving, and the diagnosis of psoriasis seemed to be almost established. The redness beneath the scales still spread, however, so that the whole skin acquired the appearance seen in psoriasis after artificial removal of the scales. Scales then commenced to form again diffusely, and the condition passed over gradually into a condition indistinguishable from Pityriasis rubra (Dermatitis exfoliativa). The prolonged maceration of the skin in Sir Stephen Mackenzie's glycerine and glycerine of subacetate of lead lotion again brought about the disappearance of the scales and the resulting skin was perfectly smooth. As soon as the maceration was stopped the scales returned and the skin became deeply lichenified. From that time onward the boy had been under careful observation, and the disease had improved and relapsed, though the general health had been on the whole well maintained. Walking was sometimes interfered with by the hyperkeratosis and fissuring of the soles; but this, again, was very variable. He had been again taken into hospital on two occasions, and on one of these he had been placed upon strict Salisbury diet, and on the other he had been given thyroid (fresh) up to the limit of toleration, but neither treatment had done him any good at all. He had been treated with tar baths, by painting with liquor picis carbonis after soaking off the scales, with tar ointment, resorcin, salicylic acid, pyrocatechin, and other drugs, the best vehicle being found to be the glycerole of starch, but without any marked benefit in any instance. Arsenic, although usually voted useless, had also been tried, and salicin, also without result. He was consequently kept moistened simply by

means of plain glycerole of starch. When shown this time the scalp was very scaly, the body was practically free from scale but very red, and the epidermis was much thickened and strongly lichenificated. The arms and legs showed also a red surface with a slight amount of scaling, the palms and soles were quite dry, hyperkeratotic, and slightly fissured, while the backs of the hands showed the characteristic blackened horny spines in every follicle. Dr. Whitfield said that he had come to the conclusion naturally that the case was one of Pityriasis rubra pilaris of severe type, but he would like to call the attention of the members to one fact noted, for which both Dr. Colcott Fox and he could vouch, namely, the marked peripheral spreading of the individual papules, a point which, as far as he knew, was not dwelt upon in any of the text-book descriptions, though Dr. Thibierge in his article in the *Pratique de Dermatologie* stated that slight enlargement might occur. Dr. Whitfield also asked for further suggestions as to treatment, and in reply to other members said that neither the injection of pilocarpine nor the use of sulphuret of potash baths had been tried. Photographs of the original and intermediate conditions were exhibited.

(2) The youth shown at the last meeting with the *follicular syphilide*, to demonstrate the fact that with a month's treatment of three grains of grey powder per diem the eruption had almost disappeared. There was a scar on the back of one shoulder to which Dr. Whitfield called attention, as it was produced by the excision of a piece of skin by means of the "Extirpationsfeder," which he was also exhibiting.

(3) A section of the above piece of skin showing the follicular site of the lesion, and also the presence of giant cells indistinguishable from those of tuberculosis, a fact which he had before emphasised.

(4) The "*Extirpationsfeder*" of Wolff. This was a small instrument shaped like a pen, but of course without the central slit. Both edges were sharpened so that when a fold of skin was picked up it could be transfixated and a bit excised with one movement. It presented, he thought, no very special advantages; but it was convenient and caused very little pain; on the other hand, the scar produced was much more evident than that resulting from the excision of the piece with a scalpel, followed by stitching, while stitches could not be put very neatly into the wound made by the new instrument. The

piece of skin thus obtained was all that could be desired from the point of view of shape.

(5) Dreuw's chamber for the purpose of growing anaërobic and ringworm cultures.

(6) A *multiple needle for electrolysis*. This consisted of six stiff iridio-platinum needles, each mounted on about six inches of stout copper wire which was insulated by means of fine French catheter. The six wires were gathered together at their other ends into a common setting, and from this proceeded a long flexible cord for attachment to a battery. The advantages claimed were, first, that all six needles could be driven into the nævus in any position, either parallel or converging to a common centre; secondly, that, owing to the stiffness and "deadness" of the copper wire, any needle not in use could be turned back out of the way without causing any inconvenience; thirdly, that the whole instrument was very light and had no tendency to drag on the part if left while the hands were in use in pushing in the needles. The instrument had been obtained for him by Messrs. Lemmon to his own specification, and was, he believed, made by Loewenstein of Berlin.

(7) A *culture of ringworm* from a case of *onycho-mycosis trichophytina*. This was rather a young culture, and, owing to the medium being fresh and somewhat wet, had not developed its characteristic appearances, but it was thought that it would probably turn out to be an ectothrix. The original culture had become contaminated with a mould, probably some variety of mucor, which so completely filled the tube that it was impossible to extricate the ringworm from it even by means of Blaxall's "flicking" method. Dr. Whitfield, as a last resource, had tried picking out a good large piece of the ringworm fungus and passing it two or three times through the spirit flame, and then implanting it in the hope that the whole of the external surface might be charred without raising the temperature of the centre sufficiently to kill the ringworm. The result was a striking success, although it was undoubtedly risky, and in all the tubes thus treated (three) pure cultures had resulted.

THE DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

A MEETING of this Society was held on Wednesday, October 26th, 1904, Dr. WALDO in the chair.

The following cases were exhibited :

Dr. ALFRED EDDOWES showed (1) a case of *bullous eruption* which had succeeded and replaced psoriasis. The patient was a strong young woman who, five years before exhibition, had "psoriasis" for the first time. A year and a half ago she was operated upon at Margate for diseased cervical glands. Soon after this the psoriasis broke out extensively. A year ago she came under the exhibitor's care for the first time. The rash disappeared in two months. A relapse occurred last March, which speedily yielded to treatment as before.

The present bullous eruption began in August, while she was anxiously nursing a brother who died the following month. Traces of large bullæ were still visible on the elbows (flexures and extensor surfaces), the backs and palms of the hands and fingers, on the anterior folds of the axillæ, the knees, and other parts. The bullæ had been thin and transparent, in some instances as large as a shilling, and so full as to be hemispherical. The majority of them stood upon erythematous bases. The irritation was only at times rather severe.

Dr. WARDE inquired if the patient had been taking arsenic, and remarked that the case somewhat resembled one of *Dermatitis herpetiformis*.

Mr. PERNET stated that it was unusual to find the fingers affected in Duhring's disease. He would rather put the case down as one of recurrent bullous dermatitis.

Dr. EDDOWES replied that no arsenic had been administered, and that the clinical phenomenon of the transition of a psoriasis into an eczema, of which this case seemed to be an instance in an aggravated form, might, indeed, throw some light upon the nature of the former affection.

(2) A very extensive case of *Lupus vulgaris* involving the whole of the head and part of the neck, in a man aged 69 years. The case had been previously exhibited before the Society, and it was proposed to treat the scalp with yellow oxide of mercury.

(3) A case of *Lupus vulgaris* six months after radical treatment. The whole of the skin and subcutaneous tissue of the right cheek had

been removed by operation and was replaced by scar-tissue which was pliable and almost skin-like in appearance. There was only one group of small nodules on the inner margin of the scar, which would be removed in due time, after which a complete cure would be looked for.

(4) Microscopic preparations of *gout of the skin*, demonstrating that one way in which tophi were formed was by the commencement of gouty deposit in the sebaceous glands. The first change was distension in cyst-like form of the glands by hyaline material in which, later, colloid masses appeared like so many eggs, and in the centre of these biurate crystals were formed as separate stars. As the distension of the glands proceeded, desquamation and some hypertrophy were followed by atrophy and eventually the cyst-wall necrotised, giving way first towards the surface of the skin, *i.e.* outwards.

Mr. T. J. P. HARTIGAN exhibited (1) a case of *carcinoma of the breast treated with radium*. The patient, an unmarried woman, aged 66 years, had suffered from scirrhus of the left mamma for sixteen years, and was sent to him last March by Dr. G. W. Sequeira, she having declined operation.

When seen, there was a stony, hard, ill-defined lump, occupying the front of the breast, of about the size of the palm of one's hand. The nipple was retracted, the skin being adherent and deeply puckered. There had never been any bleeding or discharge from the nipple. Three years ago the skin external to the nipple broke down, giving rise to an ulcer which was now rather larger than a crown-piece. The ulcer was deep, irregular in outline, having an uneven floor; it bled much and often. The pain was severe. The tumour was not adherent to the pectoralis major, nor did the axillary or supra-clavicular glands feel enlarged. She was pale and worn-looking, and stated that she had been losing flesh lately. She was treated with radium bromide, having received forty exposures of twenty minutes each, extending over the first half of the period during which she has been under treatment, while latterly she has had forty more applications of only five minutes each. The quantity of radium used was 20 mgrs. The pain disappeared, and after the first application she stated that she had "had the first good night for years!" The hæmorrhage rapidly ceased, the ulcer began to

heal, until by the end of June it was reduced to a mere fissure running horizontally across the breast at the bottom of a deep furrow. In this condition it remained until quite recently, and was apparently due to the weight of the lower half of the gland dragging its edges asunder, for when the breast was supported union occurred at once, with the result now seen—it was healed. Concurrently with the changes above mentioned is the fact that the indurated mass in the substance of the breast itself had disappeared, and but for the puckering and some slight cicatricial thickening of the gland is now quite soft, supple, and normal to feel.

Dr. SEQUEIRA recapitulated the clinical history of the patient when she was under his care, and he was much struck with the great benefit which she had received from radium treatment, for by it she was now restored from a life of misery to one of comparatively good health.

The PRESIDENT regarded the case as a most successful one, and this opinion was fully shared by the members of the Society.

(2) A case of *Acne varioliformis* in a man, aged 24 years, of one year's duration. The only treatment employed had been the Ung. Sulph. Co. of the Blackfriars Hospital Pharmacopœia.

(3) Two cases of *Erythema perstans*. (a) A man, aged 29 years, who had been afflicted for six years. The disease first appeared upon the forehead, subsequently spreading to the head and face in patches. He had been in several hospitals, and at one time swelling of the mouth appeared, causing dysphagia. In July, 1903, he presented himself at Blackfriars. At this time there was an erythema affecting the face, ears, neck, hands, and chest. The skin over the knuckles was deeply cracked. There was no scarring, though the integument generally was thin. Nothing seemed to give relief from the burning and smarting accompanying the eruption except the X-rays.

Dr. WHITFIELD said that when the patient was under him at the Great Northern in 1899 the face, forehead, abdomen, extensor aspects of the upper limbs, and the fingers and toes were affected. It had a serpiginous outline, and on the arms was eczematized. Under diluted *Liquor picis carbonis* it cleared up, with the exception of a few very small patches on the abdomen. It seemed to have left no atrophy in most places, but he thought now that it was a case of *Lupus erythematosus*.

(b) A woman, aged 46 years. The erythema began six months ago on the side of the neck, spreading to the ears, and latterly it had extended to the chin and cheeks. She was dyspeptic, nervous, and

subject to flushings after drinking tea. The condition was also aggravated at the pre-menstrual epochs. The heart was enlarged beyond the nipple-line.

Dr. WHITFIELD considered that the latter case might be grouped under the category of the angio-neurotic affections of the skin.

(4) A case of *hydrocystoma* in a female aged 52 years. The condition had lasted for twenty years, and it affected the upper lip, nose, eyelids, and eyebrows. In these situations were numerous little watery cysts containing a (? neutral) fluid. The lesions were symmetrical, but more marked on the right side. There was continuous perspiration, winter and summer. Some dysidrosis of the palms and soles was also present. She was otherwise well and had not been engaged in laundry-work. The X-rays had been tried, as recently recommended, but so far without result.

Dr. STAINER pointed out the general similarity of the condition to that of ordinary hyperidrosis nasi.

Dr. WARDE remarked that the lesions bore a strong resemblance to the condition described by Unna as *crystallina*.

Dr. R. BOWLES remarked on the presence of an eruption of minute clear vesicles seen sometimes in hyperidrosis and bromidrosis of the feet, and recommended the application of a weak perchloride of mercury lotion in such cases.

(5) A case of *tertiary syphilis* of the palm of the left hand in a cab-driver aged 40 years, of eighteen months' duration. There was no other evidence of syphilis.

Dr. GRAHAM LITTLE showed (1) a case of *rodent ulcer* in a woman which had been very successfully treated with X-rays, the epitheliomatous infiltration having apparently disappeared completely, leaving a thin, supple scar. Some few months, however, after the original ulcer seemed cured a fresh small ulcer had developed at the junction of the old scar with the healthy skin. This in its turn was being treated with the rays, with excellent results. The recurrence was notable as appearing, not in the scar, but on apparently healthy skin in close proximity to it. The original lesion had developed in the site of a pigmented *nævus*, and it was conceivable that the new ulcer was due to the fresh implication of *nævus* cells leading to epitheliomatous changes therein, which was presumably the cause of the earlier ulcer.

(2) A case of very extensive *Lupus vulgaris* in a young man, aged 23 years, who had had the disease for sixteen years. There were large patches on the face, neck, arms, and scalp, with smaller, deep-seated infiltrations, very like the lesions of Bazin's disease, on the thigh and calf. The case had been under the care of Dr. Radcliffe-Crocker, who had sent the patient to St. Mary's Hospital to be subjected to the serum treatment practised by Dr. A. E. Wright, to whom the exhibitor owed his thanks for permission to watch the case from the clinical standpoint. It was with the purpose of inviting the co-operation of the members of the Society in this task that the case was shown to-day. The patient had already had ten injections of tuberculin, at intervals of ten days. He would be exhibited later on, when a sufficient time had elapsed to have given the treatment a thorough trial.

(3) A case of *Purpura hæmorrhagica* in a boy, aged 5 years. The eruption had appeared two days previously, upon the face at first and subsequently upon the body. The child had been apparently well both before and after the development of the rash. He had at the present time very numerous petechiæ, varying in size from that of a small pin's head to that of a pea, and they were scattered thickly over the chest, abdomen, back, upper part of the thighs, on the neck, and upon the inner aspect of the forearms. The face and scalp were also affected. There were several small hæmorrhages on the mucous membrane of the hard palate and cheeks. There had been no vomiting or abdominal pain, and the temperature was 99°. The child had had scarlet fever ten months ago, but had no albuminuria.

(4) A case of *Lupus erythematosus* of an extraordinarily acute type in a woman aged 26 years, who had been in St. Mary's Hospital under the care of Dr. Sidney Phillips, to whom the exhibitor was indebted for permission to show the case. The patient had had only one pregnancy, three years ago, and the child was living and in good health. There had been a vaginal discharge for some months after delivery, but this had now ceased. She had been well up to three and a half months ago, when the eruption had come out acutely upon the face, the hands, and other parts now affected, so that the whole eruption had developed within a week. She had been severely ill with fever and painful swellings of the joints, especially those of the fingers, wrists, and knees. On admission to hospital, about six

weeks ago, the temperature was raised, and on at least one day 104° was recorded. She had been discharged from the hospital a week ago, and during the interval the eruption had increased in extent and intensity. There were now large patches of lupus erythematosus of a congestive type surrounding both eyes, the eyebrows, lids, and circum-orbital tissues generally being much swollen. These patches extended from the orbit over the greater part of the cheeks. Characteristic areas of disease were also found on all the metacarpal joints, which were slightly swollen and painful, and patches were present upon the knees, elbows, scalp, and arms. Small puncta of vascular dilatation were seen on the mucous membrane of the mouth. The urine, when tested in the hospital, was reported not to contain albumen, and this statement was accordingly made at the meeting, but a specimen obtained after she was shown was certainly albuminous.

Dr. A. WHITFIELD (introduced) considered the case an absolutely typical one of Lupus erythematosus. He had seen a similar case in which an extensive efflorescence had occurred within three days, being therefore more acute than in the present instance. Several members of the Society expressed their concurrence in the diagnosis of this rare type of the disease.

(5) A case of a *mixed eruption* in a female infant, aged 6 months, who, in the opinion of the exhibitor, was the subject of congenital syphilis. The child had been vaccinated upon the left arm four weeks ago, the wounds of which had healed perfectly. Three weeks ago she had developed the rash as now seen. Two distinct types of lesions were present; one, which was stated to be the earlier, was an ecthymatous pustule with deep ulceration not unlike the lesion of varicella gangrænosa; these were scattered over the face, abdomen, legs, and feet. On the back, however, there was a gyrate and ringed eruption, the rings varying in size from that of a shilling to that of a threepenny-piece. The borders were red and definitely scaly, being apparently made up of shiny papules. In the centre of many of the rings, of which there were about thirty, single deep-red papules could be seen. The rings were more numerous upon the buttocks, but the greater part of the back was covered with them. They were said to have commenced as "blisters," but no trace of any fluid remained in any of them, neither was there any flaking. The mother had had ten children and no miscarriages. The child looked ill, and

there were numerous enlarged glands in the neck and groin. In the mouth were three small, sloughy ulcers under the tongue. In the opinion of the exhibitor the pustules were probably a post-vaccinal incident—i.e. they were essentially pus-inoculations, and the later or coincident rings were a syphilitic manifestation.

Mr. ARTHUR SHILLITOE agreed with the opinion that the ringed eruption was syphilitic.

Dr. STAINER suggested the possibility of its being a drug-eruption.

Mr. GEORGE PERNET remarked that the lesions resembled more those of *Impetigo gyrata et gangrænosa*, and he strongly dissented from the diagnosis of syphilis.

(6) A case of acquired *syphilis* in a woman with a mixed eruption—roseolar, papular, papulo-squamous—and a ringed eruption confined to the neck, extremely like a picture in Jacobi's Atlas, and there called *Syphilis papulosa orbicularis* (Fig. 141).

Dr. NORMAN MEACHEN showed a case of *Erythema urticatum* in a young woman, aged 24 years. The condition had lasted for seven years and had proved very rebellious to treatment. Dermatographia was well marked. She did not suffer from any disorder of the alimentary tract.

Dr. WILFRID WARDE remarked upon the great benefit which often resulted from the systematic use of physical and breathing exercises in this class of case.

Dr. T. D. SAVILL said he should be surprised if the case did not yield to the internal administration of calcium chloride, which he understood had not had a prolonged trial.

Dr. V. H. RUTHERFORD showed (1) a case of *mixed Leprosy* in a man aged 50 years, who had resided in India for a considerable part of his life. He had previously suffered from syphilis and malaria. His present condition revealed anæsthesia, which began seven years ago, in the course of the ulnar, median, and popliteal nerves; a faintly yellow macular eruption, distributed over the chest and back, of three years' duration; and several scattered nodules situated upon the face, trunk, and limbs. These appeared eighteen months ago. There was marked wasting of the thenar and hypothenar eminences, and thickening of the ulnar nerves was manifest. The characteristic "leonine" aspect was quite obvious. Microscopic sections from one of the nodules showed the presence of *lepra bacilli*.

Dr. SAVILL, who had seen the case a year ago, considered that the man had distinctly improved under treatment with chaulmoogra oil.

(2) A girl, aged 16 years, with *Lichen planus* in the form of a single ring the size of a threepenny-piece on the neck, and a patch on the inner side of the left thigh the size of the palm of the hand.

(3) A man, aged 51 years, who presented a patch of *Lupus erythematosus* over the left malar prominence of three years' duration.

Dr. EDWARD STAINER showed a case of *Epidermolysis bullosa* in a man aged 64 years. The disease had first appeared at the age of 2 years, and a sister was also affected. The arms and legs showed superficial atrophy in patches, the result of slight injuries to the skin; any slight injury would produce a large blister in a few hours; the blisters at present seen on the legs were the result of scratching an itching erythematous eczema; the nails showed the characteristic atrophy.

Dr. WARDE showed a case of *syphilis of extra-genital origin*. The patient, a male, aged 30 years, developed a sore on his finger three months before. Six weeks later the secondary eruption appeared. The patient had been treated at a hospital on the assumption that the finger trouble was a tertiary manifestation. When the secondary rash appeared the iodide of potassium which he was taking was discontinued, as this was thought to be the cause of the rash. The patient showed a prominent blue-red, flat swelling occupying nearly the whole of the posterior aspect of the first phalanx of the index finger of the left hand. There were several superficial ulcerations. The secondary eruption was most abundant on the trunk. There was a fair number of patches on the arms and legs, and one or two on the face. The type recalled the corymbose syphilides, in that there were a number of rounded elevations each surrounded by a zone of small follicular papules or reddening of the orifice of the follicle. The elevations varied in size, some being nearly three quarters of an inch across; they were deep red in colour, smooth on the surface, and soft to the touch. Under the influence of mercury a rapid improvement had occurred.

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